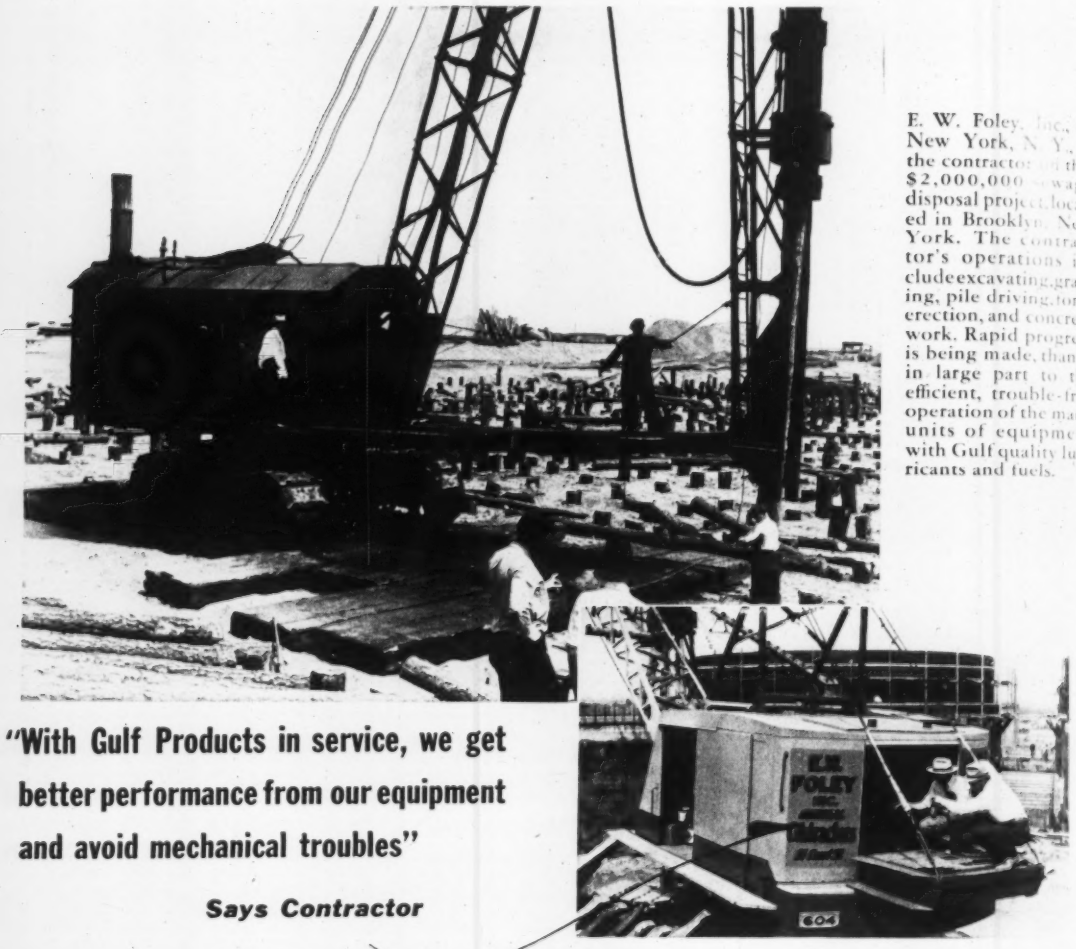
ENGINEERING NEWS-RECORD

SEP 19

"Porcupine" car measures railroad bridge and tunnel clearances for bulky wartime loads.

Gulf Quality Lubricants and Fuels

help prevent delays on large sewage disposal project



E. W. Foley, Inc., of New York, N. Y., is the contractor on this $2,000,000 sewage disposal project, located in Brooklyn, New York. The contractor's operations include excavating, grading, pile driving, form erection, and concrete work. Rapid progress is being made, thanks in large part to the efficient, trouble-free operation of the many units of equipment with Gulf quality lubricants and fuels.

"With Gulf Products in service, we get better performance from our equipment and avoid mechanical troubles"

Says Contractor

"GULF lubricants and fuels are a big help on a tough job like this," says the contractor on large sewage disposal project. "Our equipment delivers better than rated performance, and we haven't had a single mechanical delay since we began operations. Since we have a large number of pieces of equipment in service, we believe this is quite a record."

Are you entirely satisfied with the recent operating record of *your* equipment? If not, make sure that on your next job you get the benefits obtained with Gulf lubricants and fuels. Always of the same uniform high quality, they will help you get top-notch performance from every unit and extra hours of trouble-free service.

Call in a Gulf engineer before you start your next job and ask him to recommend the proper types and grades to meet your particular requirements. The services of a Gulf engineer—and the Gulf line of quality lubricants and fuels — are quickly available to you through more than 1200 warehouses located in 30 states from Maine to New Mexico. Write or 'phone your nearest Gulf office today.

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The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • SEPTEMBER 3, 1942 • VOLUME 129 • NUMBER 10

WPB advocates war housing near Ford Willow Run plant

Special committee recommends housing for war workers near plant, despite opposition of company and others. City's complex labor situation is a large factor.

Construction of a good-sized "bomber city" near the Ford Willow Run airplane plant in the suburbs of Detroit became more probable this week when a special WPB committee recommended provision of 2,500 war housing units for workers there. There has been considerable opposition to the concentration of a large group of workers within walking distance of Willow Run. Opposition by the Ford Co. extended last June to chasing Federal Public Housing Authority surveyors off its land (*ENR*, July 9, p. 58).

Hence, when FPHA went to WPB for priorities on the project Donald Nelson appointed a committee, headed by Maury Maverick of WPB's Bureau of Governmental Requirements, to study the proposal. The committee has reported favorably.

It will now be necessary for FPHA actually to get priority ratings on the job and to find the money. It probably will not be possible to do the work until the $600,000,000 war housing appropriation now in the hands of the House Rules Committee becomes available. Present housing funds are just about exhausted except as money becomes available for reallocation when an occasional project is cancelled.

The whole Detroit area housing situation has been complicated by the rather paradoxical labor supply situation. Until the last month or two there has been considerable unemployment there as a result of the auto shutdown; workers have been moving away to war jobs; ample vacancies have been available. At the same time, everyone has realized that as soon as the auto companies got rolling on their war contracts, employment would rise higher than ever before.

Particularly it was realized that the new Willow Run plant—out in the middle of a cornfield—would present a severe housing problem.

In this situation, housing estimates had to be based on constantly changing employment estimates. Last spring, it was estimated that Detroit area employment would reach 742,000, of which some 200,000 would be coming into the area from outside and would have to be housed. More than 100,000 were to have been housed at Willow Run.

A housing program was put together on this basis, but before it could get beyond the paper stage, the employment estimates were revised downward to 675,000, and WPB directed that by such measures as employing more women, the influx of new workers be held to 75,000. At the same time the estimate of peak employment at Willow Run was cut to 55,000.

Based on these revised estimates, the Detroit area housing program now calls for 24,000 privately financed dwelling units. Some 12,000 of these have been started since last September, and it's intended to grant priorities on another 12,000; of these last, 4,500 are to be in the towns surrounding Willow Run.

Also serving Willow Run are the newly approved 2,500 publicly financed dwelling units at "Bomber City", some 2,000 or so more to be built in the surrounding towns, dormitory units near the plant for 3,000 single workers, and 1,000 two-person dormitory apartments for married couples.

In Detroit proper, chief reliance is placed on early completion of two old USHA slum-clearance projects and on construction of 1,650 new dwelling units.

Softwood lumber order clarified

It is not essential that one have a priority rating in order to obtain construction lumber under WPB's new lumber distribution system, M-208, (*ENR*, Aug. 27, p. 39) it is emphasized according to supplementary explanations issued this week.

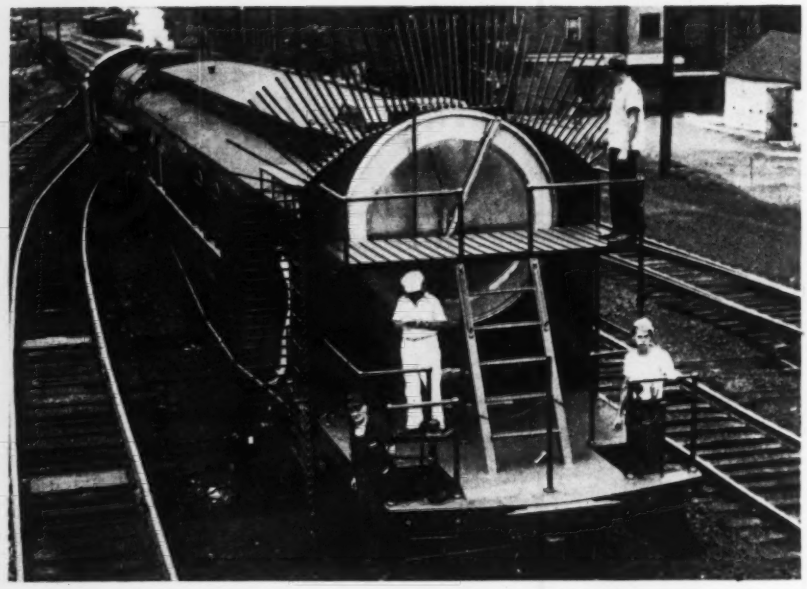
The order divides lumber purchases into four classes, defined in accordance either with the priority rating of the purchase or the use to which it is to be put. A purchaser who has a priority rating may put his purchase into the class corresponding to that rating. But even though he has no rating, if the lumber is to be used for one of the listed purposes, he may put his purchase into the appropriate class and rate it accordingly. The purchaser may use whichever of these systems will give him the higher rating.

Class 1 consists of only those orders entitled to a rating of AAA, AA-1, or AA-2. All such purchase orders should be endorsed AAA when they are placed. Southern Pine, Douglas Fir, or Western Larch sold as meeting specifications of 1,800 or 2,000 lbs./per sq. in tension of 1,300 or 1,400 lbs. compression may be sold only on class 1 orders.

Class 2 orders consist of purchases rated AA-2X, AA-3, or AA-4 or of purchases for uses included on a List A. Among the uses of List A are construction of manufacturing plants being built with the aid of any P-19 or PD-3 rating and maintenance of any structure owned by U. S. war agencies or Lend-Lease governments. All class 2 orders are placed with the rating AA-2X. Lumber of the three types above may be sold only on orders in class 1 or 2 if it has a tension strength of 1,200 lbs. or compression of 1,000 or better.

Class 3 orders, covering ratings of A-1-a to A-1-k—all placed as A-1-a—includes also uses on List B of M-208. Principal uses are construction of any defense project rated under order P-14, P-19, P-41, P-46, P-56, or PD-3; any defense housing project; reconstruction of buildings destroyed by fire, flood, and the like; farm, mining, or railroad structures. Also included are maintenance and repair of any utility, railroad, farm, or mining structure, hospitals, roads, bridges, dams, wharves, dock and harbor or airport facilities, and any structure used for war work. Sale of most softwoods in grades of No. 2 common or better are restricted to orders in class 1, 2, or 3.

Class 4 consists of orders rated up to A-2 and of orders for maintenance and repair of structures owned by any governmental unit or a public school or college.



Railroad tests clearances for war loads

Developed by Harold Buckley, clearance engineer for the New York Central Railroad, as a means of insuring passage of bulky wartime loads, this "Porcupine" railroad car is now in operation on the company's lines.

Equipped with 112 wooden "fingers", mounted on wing nuts to permit the wooden rods to swivel backward on contact with some object, the car is pushed head first through tunnels and bridges to determine minimum clearances.

When any of the fingers strike a projection and are bent back, they hold their position for measurement by an operator who uses a large steel pantograph on the outside of the car. This pantograph is connected to a smaller one inside the car that reduces the measurement to a scale of one inch to the foot. Thus, the railroad is able to obtain an accurate picture of the inside of its tunnels and bridges—a picture that will give minimum clearance protection.

Railroad engineers transfer the readings obtained by the car onto working charts, for the reference of freight agents and loading officials and for future use by the maintenance forces and work crews.

Miami school inaugurates engineering courses

A new curriculum leading to a degree of Bachelor of Science in Engineering Sciences has been announced by the University of Miami, at Miami, Fla.

Previously, only pre-engineering training was available in courses designed for students who intended to enter an engineering school in their third year of college. The two-year pre-engineering course will continue, but in addition students who wish to take four years of theoretical training in standard engineering courses may enter the new program.

The new curriculum, it was explained, is similar to that followed in many other colleges where specialized degrees in civil, mechanical and electrical engineering are not offered, but a thorough basic training is given. The program will be under the general supervision of J. H. Clouse, professor of physics, and area supervisor of the government-sponsored engineering, science, and management defense courses at the university.

Kentucky to rebuild Louisville street

Under the terms of an act of the 1942 state legislature, the Kentucky Department of Highways will take over and reconstruct 2 miles of Third St., in Louisville, into a divided six-lane thoroughfare. J. Lyter Donaldson, commissioner of highways, said the state will pay an estimated $500,000 as total cost for the work.

As reconstructed, the 7,300 ft. of new roadway will make use of most of a 100-ft. right-of-way already available. A 9½-ft. center strip will divide two 22-ft. roadways, and similar 9½-ft. strips will divide the center roadways from service roads providing 8 ft. of roadway.

Contractors will be asked to bid on construction of concrete, rock asphalt and bituminous asphalt. Efforts will be made, Donaldson said, to put the project on an access highway status, since it will constitute an improvement on the direct route between Fort Knox and Bowman Field and between Fort Knox and the business section of Louisville.

Yards and Docks Bureau reaches centennial

The Navy's Bureau of Yards and Docks reached its one hundredth anniversary on Aug. 31, according to a Navy Department announcement. Organized by act of Congress on Aug. 31, 1842, the Bureau has grown from a minor naval organization to an institution that is charged with responsibility of building and maintaining all naval shore establishments.

Rear Admiral Ben Morreell, Chief of Civil Engineers and Chief of the Bureau of Yards and Docks, commenting on the anniversary, said that the importance of the bureau's work is exemplified by the battle of Midway recently, where victory was made possible by the existence of a completely equipped American base at the scene of battle. Admiral Morreell said that contract for improvement of the defenses of Midway was awarded in August, 1939, and contract date for completion was August, 1942. Although the battle of Midway started June 3, 1942, the Bureau had completed construction work on the island to a value of $19,795,548—about five and one-half times the original program.

WPB halts work on buildings for bank

WPB cracked down for the first time recently on a violator of the construction limitation order, L-41, and in consequence the Bank of America is probably stuck for the duration with two unusable buildings.

The bank, according to WPB, employed the Capital Co. to remodel two buildings in Vernon and Huntington Park, Calif., into branch banks. Work started April 20, eleven days after L-41 forbade initiation of new work. Order S-84, therefore, forbids Capital Co., Bank of America, or "any other person" to obtain or use any "material or construction plant" to continue construction on the two buildings. At the time work was halted, the projects were about 35% complete, and the buildings are understood to be in unusable condition.

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Begin work at site of new Davis Dam

The Utah Construction Co., recently awarded a contract for construction of Davis Dam across the Colorado river at Bullshead canyon, has begun construction of a new road to the damsite and a railhead at Louise, Ariz., two miles east of Kingman.

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Canada installs allocation system paralleling that used in U. S.

New order places Canadian industry on same code system to show end-use of products manufactured or purchased for war

Following almost exactly the provisions of the allocation classification system installed by the War Production Board in the United States (*ENR*, June 4, p. 895), the Canadian government has installed its own system, calling it by the same name.

The new order, implemented by Order No. P.O. 1, issued by W. E. Uren, priorities officer of the Department of Munitions and Supply, became applicable to all businesses in Canada on July 10.

Code numbers

As was done in the United States, the system consists of a series of code numbers and letters indicating the class of ultimate consumer of the goods or materials being purchased, and an allocation symbol which shows the specific branch of industry for which the purchase is being made. A classification of all types of users of materials and commodities, except retailers, has been set up, and allocation symbols have been allotted to each.

It is pointed out that since the method of classifying, and the code numbers assigned to each class and sub-class of persons, are identical with those adopted by the War Production Board, it is possible to completely interlock the systems in the two countries so that if a Canadian purchaser buys goods or materials that must come from a supplier in the United States, the order, because of the similarity of symbols, will receive the same treatment as a corresponding order that might be placed by a United States purchaser.

The purchaser's symbols are five in number: USA, for goods or materials ultimately intended for the army or RCAF; USN, goods or materials intended for the navy; and LL, FP and DP for purchases required for lend lease, other foreign and domestic purchases, respectively. The letters USA and USN, symbols covering requirements of the United States armed forces, have been adopted also for requirements of the Canadian forces because the WPB makes no distinction in allocation of U. S. supplies as between the Canadian and U. S. armed services.

Numbers assigned

Again, as in the American system, the allocation classification numbers range from 1.00 to 23.00, and are intended to cover the entire range of military and industrial purchasing, except certain listed businesses that are not classified but are required to transmit to their suppliers the symbols received on their customers' orders. Numbers below 8.00 are assigned to the manufacturer of military requirements, while numbers from 8.00 to 23.00 apply to industrial and civilian operations.

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Defense Homes group transferred to NHA

Arrangements have been completed for transferring the Defense Homes Corp., an RFC subsidiary, to the National Housing Agency, effective Sept. 1. When NHA was created last spring, DHC was assigned to it along with other federal housing outfits, but the shift is only now being consummated.

After the transfer DHC will maintain its separate existence as a corporation. It will finish the projects it now has underway, and manage the completed projects. Whether it will be assigned any additional projects is not yet decided. There's a good chance it will, since its status as a corporation with practically no statuory limits on its authority could enable NHA, through it, to undertake types of projects that do not come within the Lanham Act.

With the transfer, Commissioner Herbert Emmerich of the Federal Public Housing Authority will be president of DHC, while George Williams, who has been a vice-president of DHC, will become executive vice-president.

TIRE and gasoline rationing have reduced Pennsylvania's highway fatality toll by 16 percent, according to Lynn G. Adams, commissioner of motor police.

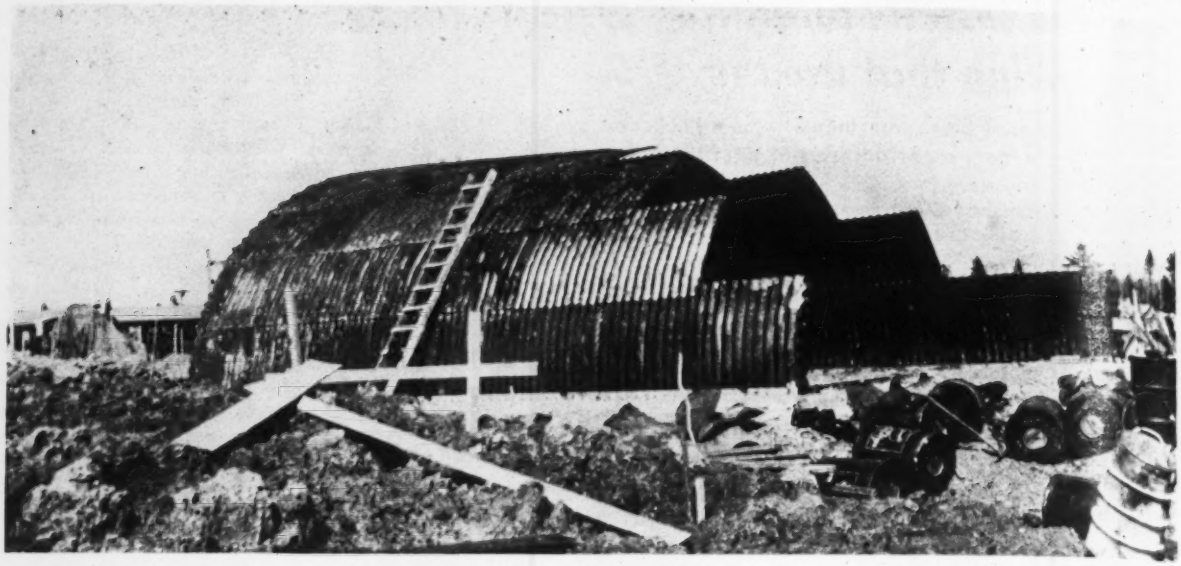
Photo by Underwood & Underwood

Sixty-two year old elevated structure goes to war

The tracks and structures of the 2nd Ave. elevated railway, which served New York City for more than sixty years, are being torn down rapidly to become part of the war effort. At the former 42nd St. station (shown above) the steel is being removed by burning apart large sections and lowering them for haulage off the streets. Rails are being relaid at war plants and camps. Some structural members are salvaged for reuse, but most of the steel is sent to blast furnaces as scrap. Disposition of all material is made on orders of the War Production Board.

The demolition work now under way is a 5-mile section from the Queensboro Bridge (59th St.) to Chatham Square. A 3-mile section, from 59th st. north, was removed a year ago under another contract.

The work is being done, under supervision of the Board of Transportation, by Albert A. Volk Co., Inc. of New York City. The contract, now 40 percent complete, provides that Volk pay the city $133,003 and take what can be realized from the salvage. Chas. Fleschner is in general charge of field work, J. A. Rutan is chief engineer and John T. Ryan handles all steel operations for the Volk organization. The same company, and many of the same men, removed the 9th Ave. "L" (ENR Dec. 26, 1940, p. 852.)

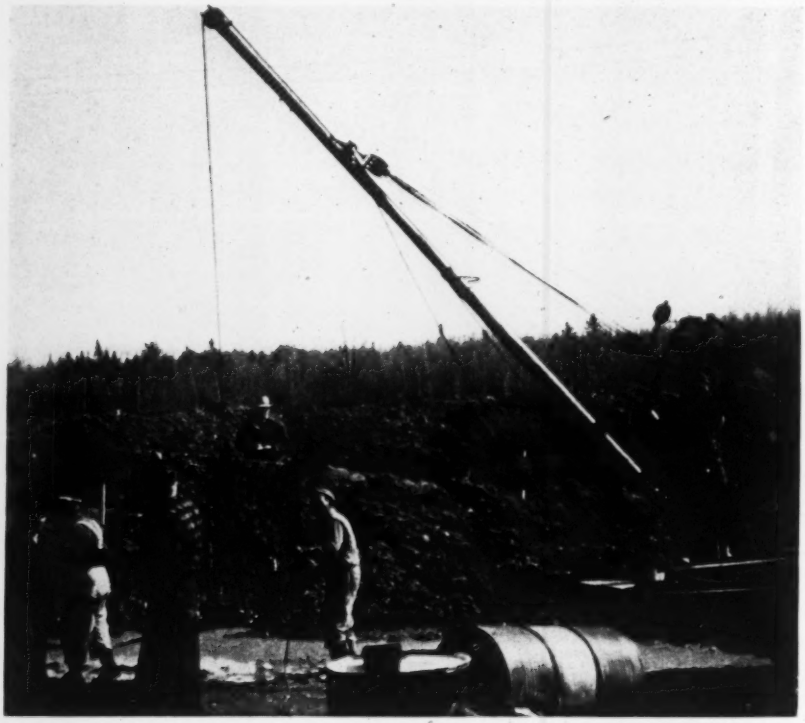


One of the 26x60-ft. igloos under construction. Foundation is a 6½ in. reinforced-concrete slab on a 3 ft. gravel fill.

Metal Igloos Speed Eastern Airbase Job

Knowing that severe winter weather might be expected during construction, the general contractor at an eastern airbase chose to construct corrugated metal instead of reinforced-concrete igloos, when estimates revealed the cost of the two types to be about the same. This plan was a wise decision, as bad weather was encountered, and because of the small amount of concrete work required the structures were completed on time.

Three igloos were built, two 26x60 ft. and one 26x40 ft. Cost of the materials was $8,000 for each of the larger structures and $6,200 for the smaller. Construction of all three was similar so only that for the first large igloo will be described.



For the erection work a small hand-operated crane mounted on the end of the truck was employed for handling the corrugated metal sections.

The foundations for the structure is a reinforced-concrete slab of 6½-in. minimum thickness placed on a 3-ft. gravel fill, which covered two longitudinal 6-in. dia. tile drains, one just past each edge of the slab. In about three days ten men using transit mix concrete were able to build the slab.

Crane erects sections

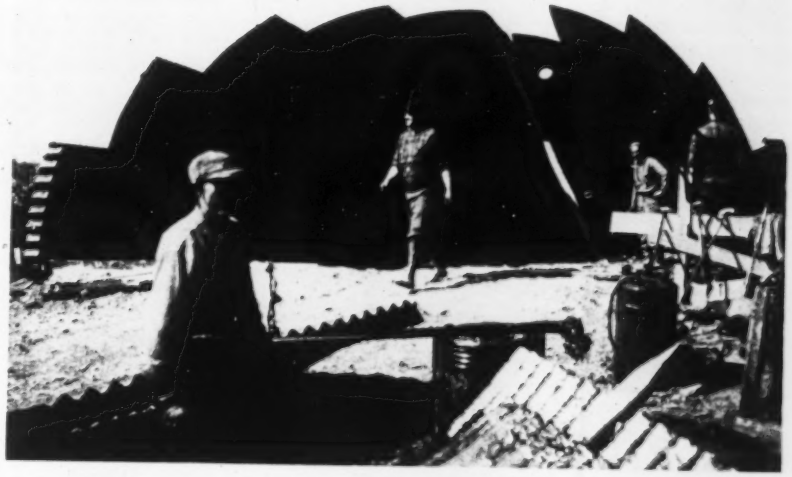
A small crane was employed for erecting the corrugated ¼-in. thick arch roof, which was curved to a radius of 13 ft. and stiffened on 10-ft. centers by 5x3x⅜-in. angles. The 4½-ft. wide arch rings were built up in ten sections with bolted connections. Once the roof was completed a light gage lining, separated from the roof by a small air space and joined to it by strap hangers on 4-ft. centers each way, was added. This lining was to prevent any condensation from dripping onto the materials in storage.

The closed end of the igloos was made of corrugated metal No. 3 gage stiffened by three 8-in., 24-lb., wide-flange H-sections. The other end was very similar except that four columns were employed. The entrance was a tunnel 23½ ft. in length and 8¾ ft. in diameter. It was made up of corrugated metal rings 4½ ft. wide and fabricated in 7 pieces. Ten men in one week were able to do all the erection work for the one structure.

All of the igloo, but the entrance, was covered by a minimum of 2 ft. of earth and a 6-in. dia., open-joint tile drain was placed at the edge of the fill. Next an earth fill of 15-ft. height and with side slopes of 1 on 1½ was built a few feet away to completely surround the structure, except where entrances were provided. This fill was to minify the damage in case of an explosion. The earth fill, which totaled about 12,000 cu.yd., was delivered by truck and spread by bulldozers. Roughly, seven days were needed to put in the fill and do the grading and seeding work for the one igloo.

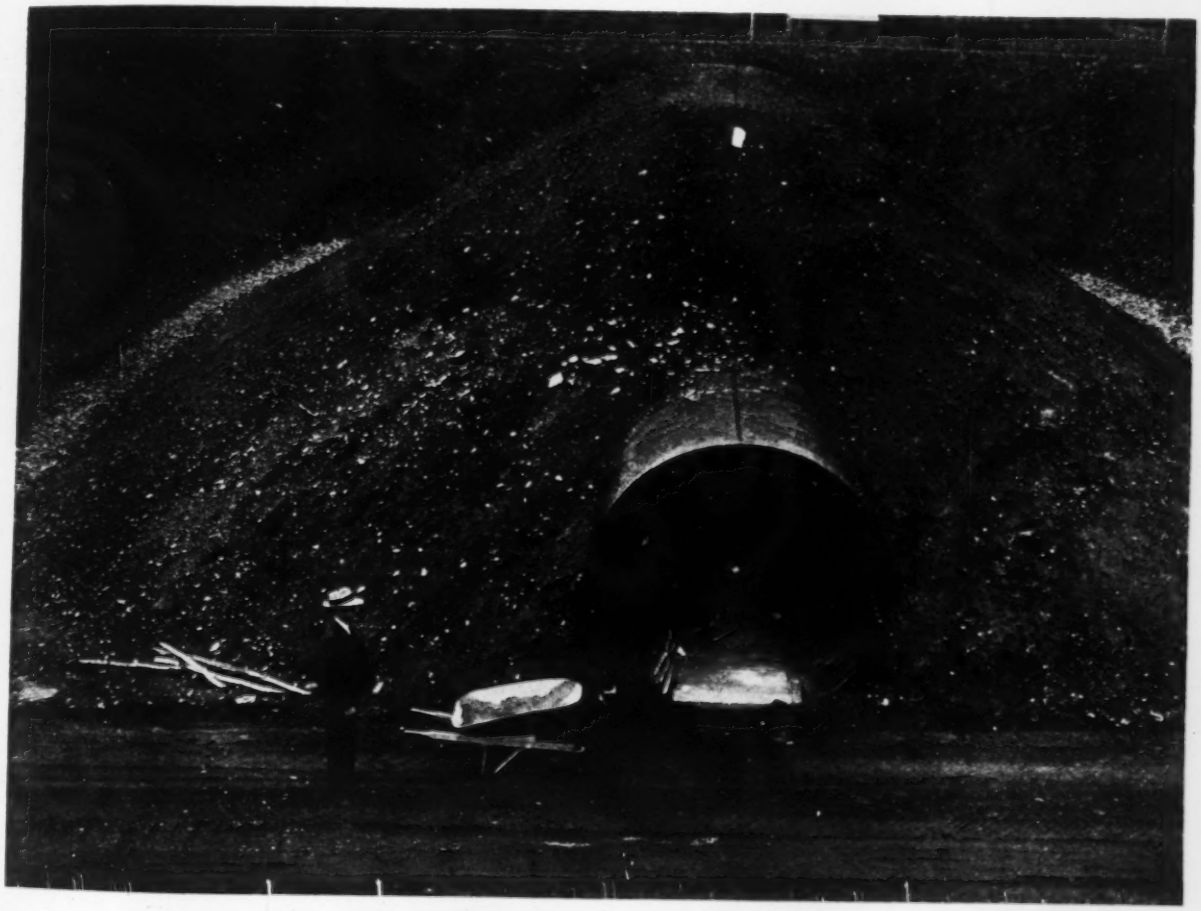
Those in charge

The work was done by the Boston District, U. S. Engineers, Col. L. B. Gallagher, district engineer, John E. Allan, chief of the defense control subdivision, Maj. H. P. Dunbar, assistant operations officer in charge of airfield construction, and R. E. Payzant, area engineer. T. W. Cunningham, Bangor, Maine, with Leroy Nickerson, superintendent, was the general contractor.



The 4½-ft. wide arch rings of the igloo were erected in ten sections.

One of the completed igloos covered with a minimum of 2 ft. of earth and surrounded by a 15-ft. high earth fill.



Gas tax revenues fall as controls tighten

The State of Maryland is losing more than $250,000 monthly in gasoline taxes due to the current rationing program, according to the Maryland Petroleum Industries Committee.

The committee's figures on gallonage reveal that during June, 1942, 24,800,280 gal. of gasoline were purchased; as compared to 30,233,305 in June, 1941. At the rate of four cents per gallon in taxes which accrue to the state, it represents a loss of $217,321 this year as over June, 1941. The gallonage decline was said to be even greater in July.

Feeling that current restrictions on the use of bituminous materials for road repairs must cause state roads to depreciate during the war, the committee said it contemplated a constitutional amendment to earmark all gasoline and motor vehicle tax revenues exclusively to highway purposes to provide for an extensive reconstruction program after the war. Under present state laws, the four cent state gasoline tax has provided only two cents for road reconstruction and maintenance. One and one-half cents of the remaining fund is allotted to the lateral road fund administered by the counties, and the remaining half cent goes to a grade crossing elimination fund at present.

National collections drop

Gasoline collections for July, 1942, in 27 states were 18½ percent less than in July, 1941, according to figures collected by the Public Roads Administration. In the rationed states, reductions ranged from 24 percent in New Jersey to 35½ percent in Vermont. In most states, taxes on June gasoline sales are paid to the state in July. Hence the figures largely reflect June consumption, the PRA said.

There was a 35.6 percent decline in vehicles counted at 202 points on rural highways in 21 states during July as compared with July of 1941. The decline in July traffic averaged 40.7 percent in the rationed area and 28.3 percent elsewhere.

The largely urban traffic on 15 toll facilities in the rationed area declined about 32 percent during the month.

Speed laws changed

In response to the President's request for the general adoption of a 40-mile speed limit for motor vehicles, four states have changed their laws by legislative act, eight effected a change by gubernatorial proclamation or other means, and all except six others took some action, the PRA reports.

Kansas, Missouri, Nebraska, South Carolina, North Dakota and Wyoming have taken no formal action as yet. Although Pennsylvania's governor has recommended a 40-mile limit, the state has taken no action outside of ordering vehicles owned by state departments to observe this limit. Florida will issue only warnings to speeding motorists.

Most of the states are already changing speed-limit signs along principal highways to conform with the new rulings.

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Canada helps students to complete courses

Corresponding to a similar arrangement in the United States (*ENR*, July 23, p. 123), the Canadian government has made arrangements to assist needy students to complete professional education courses, provided their services are made available to the country after graduation.

Students in science and engineering, in all four years of university work, may borrow up to a maximum of $300 through the Director of National Selective Service, at Ottawa.

In addition, special arrangements are being made to assist 500 selected students who have matriculated this year, to enter science and engineering courses. Financing of the program is generally done jointly by the federal and provincial governments.

Cities expand waterworks delivery capacities

Acting to insure an adequate water supply to meet abnormal wartime demands, two more cities last week expanded the capacity of their waterworks systems.

At Little Rock, Ark., a new 5 mgd. clearwell has been placed in operation at the city's Pulaski Heights filter plant, to act as a storage unit during slack periods. Recently, the filter plant was required to deliver 17,000,000 gal. in a 24-hr. period, the largest amount ever used in the history of the water system, according to Marion L. Crist, municipal waterworks engineer.

Work began last week on a $61,000 filter plant for Shreveport, La., to increase the capacity of the water system by 3 mgd. The new plant is to be a rapid-sand type.

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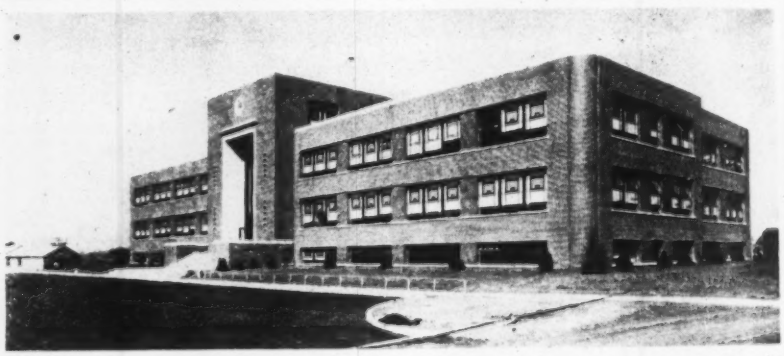
Engineer exams set

Two state boards of registration for professional engineers plan examinations next month. The Texas State Board of Registration will hold examinations at Austin, Tex., Sept. 18 and 19; the Iowa State Board of Engineering Examiners will hold its next examination for professional engineers on Sept. 15 and 16 at Des Moines.



Signal Corps completes attractive office building

U. S. Signal Corps Photo

Recently completed as a permanent office building for the U. S. Army's Signal Corps is this structure at Avon, Ky. The central portion is three stories with basement, and the remainder two stories with basement. A reinforced-concrete frame is employed, with brick walls, reinforced-concrete floors, and a built-up tar and gravel roof. The structure provides a total of 41,785 sq.ft. of floor space.

The building was completed by the Cincinnati District, U. S. Engineers, of which Col. Fred T. Bass is district engineer and Lt. Col. C. H. Menger area engineer. Allied Engineers and Architects, of Lexington, Ky., with John F. Wilson in charge, were architect-engineers. Frank Messer & Sons, Cincinnati, was the general contractor.

Railroad's scrap yard works for war

The Lackawanna Railroad system's huge scrap yard in Scranton, Pa. is now providing some 17,000 tons of metal yearly for the war effort. Long in service for the railroad's own purposes, the yard handles an average of 25,000 tons of scrap each year. Of this total, about 8,000 tons are reconditioned and rebuilt for further service, and the remainder is now turned over to steel mills for conversion into war materials.

The plant is some 700 ft. long, straddled by a traveling crane which controls an 8,900 lb. magnet, 65 in. in diameter, capable of picking up a ton of scrap at a time.

Army Transport Corps to move men, materiel

Creation of an Army Transportation Corps in the Services of Supply, to "coordinate, direct and speed the flow of men, equipment and supplies" was announced recently by Robert Patterson, Under-Secretary of War.

War Department statements said that the new corps will have a status generally paralleling that of the Corps of Engineers and the Quartermaster Corps. It will have direction, supervision and coordination of all transportation functions of the War Department, and will have a distinctive insignia. Brig. Gen. Charles P. Gross, now chief of the Transportation Service of the Services of Supply, which is supplanted by the new corps, will be in command.

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More car rails to feed war hungry steel mills

Streets of Charleston, S. C., are to give up about 1,800 tons of abandoned street car rails to help meet the nation's drive for steel scrap. The decision to remove the rails was reached through an agreement with the War Production Board, the South Carolina Power Company, and Charleston officials.

In announcing the plan, Mayor Lockwood stated that the rails would be removed by WPA labor, and pointed out that the city would hold the South Carolina Power Co. to its agreement to replace with permanent paving the section of street between the rails. The power company had previously agreed to remove a certain amount of track each year and replace the paving, but this agreement had not been put into effect in recent years because of the traffic situation incidental to the war, and the inability to get labor and materials. The work is to be supervised by Charleston's city engineer and the pavement will be replaced by the trench and slot method to a depth of 20 inches.

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Canadian university gets new engineering head

J. J. O'Neill, professor of geology at McGill University, Montreal, Canada, recently was appointed dean of the school's faculty of engineering, succeeding Dean Ernest Brown, who had asked to relinquish the title in favor of full-time teaching duties.

Professor O'Neill, a graduate of McGill, had been dean of the faculty of graduate studies and research since 1938.

Dean Brown, a pioneer in the use of concrete in shipbuilding and in the saving of metal in building design, has made important studies in the design of dams, and had been engaged for a number of years by the Shawinigan Water & Power Company.

Set apprentice standards for carpenter training

Although war conditions have tended to cut down the extent of apprenticeship training in the construction trades, the Federal Committee on Apprenticeship is continuing its efforts to keep an orderly apprenticeship procedure alive in the industry. The committee last week announced the publication of national standards for apprenticeship of carpenters. This is the fifth national standard to be adopted since a standard was approved for plumbers in 1936. Standards for steamfitters and painters were approved in 1939, and a standard for electricians a year ago.

A set of standards for plasterers and cement finishers is now in preparation.

Availability of plentiful work at good pay for semi-skilled men and the necessary shift of the committee's attention to fields—particularly the metal trades—in which the war has caused severe shortages of skilled men, have resulted in a drop in the number of apprentices in the construction trades. The effort now is directed toward keeping the framework of the existing systems alive.

The carpenter apprenticeship standards call for a 4-year term of training, covering the full range of skills in the trade, coupled with 144 hours per year of related school work. Beginning apprentices should be between 17 and 24 years old. Hours of work should be the same as for journeymen. Each apprentice should sign a standard form of agreement. Rates of pay and ratio of apprentices to journeymen are to be worked out by local joint labor-employer councils.

• • •

Ohio plans $24,000,000 road building program

Ohio's 1942 highway building program, including improvements to existing highways, will represent a cost of $24,722,000 at the close of the year, despite priority restrictions according to Hal G. Sours, state highway director.

The department to date has let contracts totalling $16,561,127 including engineering costs, while plans have been completed and projects will be advertised for an additional expenditure of $8,161,000 within the next few months, Mr. Sours said.

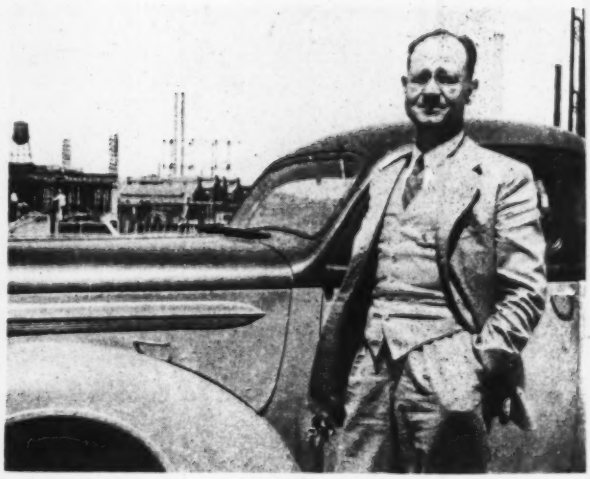
He explained that the marked jump in this year's program over the $17,235,007 spent in 1941 was made possible by the decision of the federal government to increase federal financing of projects on the strategic highway network, enabling the state to "recapture" a considerable amount of funds, through the re-financing of the projects. These funds in turn were made available for the 1942 program.

MILTON E. LEAVITT, superintendent of railroad construction for the C. J. Maney Co. on a job in the Boston District, U. S. Engineers, is supervising the laying of 47,000 ft. of track. Mr. Leavitt was loaned to the Maney firm by the Boston & Maine R.R.

A. T. CLARK, general manager, of the Water and Sewage Works Manufacturers Association, Inc., is shown stepping from the 81 year old stage coach used at Poland Springs, Me., for transporting sportsmen over the 5,000 acre resort. Mr. Clark's visit to Poland Springs was for the purpose of making arrangements for the New England Water works Association meeting to be held there on Sept. 15-18.

MEN AT WORK

In the Tullahoma, Tenn., office of the U. S. Engineers, LIEUT. WM. A. DARDEN (left) is now area engineer and LIEUT. THOS. L. BRANSFORD, assistant area engineer.



ASHLEY G. CLASSEN, superintendent of the El Paso department of water and sewerage, has more troubles these days than this picture of him would indicate. With the Army closing in from every side and priority problems balking his efforts to increase water supply and sewage facilities, he is busier than at any time since he graduated from the University of Kansas in 1923 and went to work for Myers & Noyes in Dallas. Still, he is making progress, as shown by the rising concrete framework in the left background. It will be a new treatment plant for Rio Grande water to supplement the present well supply.

PHIL KLINE is now with the Dravo Corporation as assistant to the vice-president at a shipyard on the Atlantic Coast. Kline has recently been with Utah Construction Company on an earth-fill dam and long rock tunnel for a hydro-electric development, and was formerly with the Tennessee Valley Authority.

Two men now playing an important part in municipal engineering at St. Louis are ARTHUR C. MEYERS (left), director of the city's department of streets and sewers, and E. H. PAFFRATH (right), assistant sewer commissioner of St. Louis.

LT. COL. C. H. MENGER (right), area engineer at Lexington, Ky. for the U. S. Engineers, explains to A. N. CARTER (left), assistant editor of ENR., how handling of personnel is given major emphasis on his projects. Colonel Menger is in charge of an Avon, Ky., job and the Richmond, Ky. ordnance depot.

N. P. AHRENS has had charge of reconstruction of shipways and a pier for Linde-Griffith Construction Co. of Newark, N. J. on a shipyard rehabilitation job where Walter Kidde Constructors Inc. of New York were the general contractors.

Before approving the placing of concrete for the Iowa approach for a new Mississippi River bridge at Dubuque, Iowa, C. B. TAYLOR, superintendent for Melberg & Taylor, makes a personal inspection of the forms.

MEN AND JOBS

Thomas Brownbridge Simpson, who has held the rank of captain, has been promoted to major in the Corps of Engineers. Twenty-seven years old, Major Simpson is a graduate in civil engineering of Cornell University.

Herman G. Klemm, formerly chief engineer on the construction of the Glenn L. Martin-Nebraska Co. bomber assembly plant near Fort Crook, has returned to the company's Baltimore headquarters to become special assistant to the vice president in charge of engineering.

Victor C. Smith, of Dayton, Ohio, Montgomery County engineer for the past nine years, has resigned to enter private engineering practice.

Thomas H. Sauter, of Akron, Ohio, has been appointed city engineer of Cuyahoga Falls, Ohio.

Wayne E. Lombecker, of Topeka, Kan., chief engineer of the Kansas Corporation Commission, has been elected chairman of the National Association of State Utility Engineers.

Floyd E. Rose, an engineer for the street department of Kansas City, Kan., has been granted a leave of absence to join the Army.

Lieut. Col. James A. Dorst, commander of the 105th Engineer Battalion of the 30th Infantry Division, has been promoted to the rank of colonel.

Capt. Albert G. Overesch, formerly of Kansas City, Mo., has been assigned as assistant construction officer in the Omaha division offices of the Corps of Engineers.

G. W. Spaulding, formerly assistant chief engineer of the Pennsylvania Water & Power Co., has been promoted to superintendent of power, and **Donald Gunn,** formerly assistant to the chief engineer, has been promoted to chief engineer.

R. S. Collins, of Columbia, S. C., has been commissioned a captain in the Corps of Engineers.

Robert G. McLendon, engineer for the Mississippi State Highway Department for 11 years, has resigned to become a resident engineer with the U. S. Bureau of Public Roads, in Alaska.

R. W. Shepherd, assistant state director of operations for the WPA in Alabama, has been promoted to director of operations, succeeding **J. A. Baird,** recently called to the Army as a captain in the Corps of Engineers.

William T. Augus, superintendent of the Ada, Ohio, waterworks plant of the Ohio Power Co., has accepted a civil service position with the U. S. Geological Survey.

Bartow Van Ness, Jr., formerly assistant to the chief engineer of the Safe Harbor Water Power Corp., has been promoted to chief engineer.

Charles M. Noble, formerly of the Port of New York Authority and a special highway engineer on the Pennsylvania Turnpike, has been commissioned a lieutenant commander in the Navy's Civil Engineer Corps.

Donald H. McCoskey, civilian member of the Kansas City, Mo., district office of the Corps of Engineers, has been commissioned a major.

M. S. Dodd, senior engineer of the Nebraska State Highway Department, has resigned to become chief engineer and manager of the North and Middle Loup Power districts. He succeeds **Herbert James.**

Maj. Robert F. Metcalfe, former area engineer at Fort Riley, Kansas, has been named post engineer at Fort Des Moines, Iowa.

About 125 engineers from the Lansing and district offices of the Michigan State Highway Department have been assigned to the highway and structures construction program now under way near Willow Run, and the adjacent Detroit Industrial Expressway. Among those assigned are **J. H. McCarthy; C. H. Brown,** former assistant district engineers at Grand Rapids; **W. W. Dalzell,** from the Saginaw office; **A. R. Peterson,** former Upper Peninsula locating engineer; and four project engineers, **H. J. Brighton, A. W. Kirchoff, W. D. Theeringer** and **C. B. Laird.**

A. W. Gaines, Harrison, Iowa, county engineer, has been granted a leave of absence to take charge of construction on a defense project near Lincoln, Neb.

A. W. Grubb, Benton County, Iowa, REA engineer, has accepted a post with the U. S. Engineers at Omaha, Neb.

M. H. Anderson has been named sanitary engineer at Sioux City, Iowa, for the U. S. Public Health Service, replacing **F. W. Pickworth,** who recently joined the Army.

Frank S. Hale, assistant [illegible] area engineer at Port Townsend, Wash., and **Emil H. Rausch,** assistant [illegible] the chief of the Alaska operations division of the Seattle office of the Corps of Engineers, have been promoted to the rank of captain.

Ellwood Johnson, who has been serving as superintendent of the sewage treatment plant for the District of Columbia, has been promoted to the position of engineer of sewers. Mr. Johnson was in charge of the construction of the Rock Creek diversion sewer completed last year and of the Washington sewage treatment plant.

Frank O. Laing, Polk County, Iowa, engineer, has been appointed a director of the Iowa Engineering Society to fill a vacancy left by **C. C. Coykendall,** who resigned recently to take construction work on the Alaska Highway. Prof. **Frank Kerekes** of Iowa State College has been appointed vice president of the society replacing **E. W. Blom,** now a major in the Corps of Engineers.

Lawrence E. Strahm, civilian construction superintendent at Paine Field near Everett, Wash., has received a commission as captain in the Corps of Engineers and named post engineer at Camp White, Medford, Ore.

Tom Wilson, sanitary engineer for Klickitat County, Washington, has resigned to accept a post with the state health department at Spokane.

William E. Chnel, city engineer of High Point, N. C., for several years, has resigned to enter private employment.

V. R. Eagon, who has been representative in northwest Kansas for the past 18 years of the culvert division of the American Rolling Mills Co., is now employed by the U. S. Army Engineers district office at Denver, Colo.

Floyd H. Oakley is serving as engineer-manager at Winston-Salem, N. C., for the W. R. Holway & Associates, engineering contractors, redesigning the $8,000,000 High Point, N. C., hydro-electric project.

J. W. Harries, who has been superintendent of the Larned, Kansas, municipal light plant for the past year and a half, has accepted a similar post with the public utilities department of Marshall, Mo.

Joseph L. Quinn, Jr., has become acting chief engineer of the Bureau of Sanitary Engineering, of the Indiana State Board of Health, succeeding **B. A. Poole,** who recently joined the Sanitary Corps with the rank of captain.

Canadian engineers set up war problem committees

In a move that is both a departure from normal procedure and a broadening of the organization's field of activity, the Engineering Institute of Canada recently set up three committees to deal with war and postwar problems that will confront Canada.

The committees will deal respectively with engineering aspects of civil defense in Canada, with postwar reconstruction and re-establishment, and with industrial relations.

The civil defense committee, specifically, is charged with following up the work begun by a special three day session of the Institute held in Toronto, during which confidential lectures were delivered by Prof. F. W. Webster, deputy chief engineer of the British Ministry of Home Security. These lectures dealt with British experiences under air raids, and latest British defense practices. The committee will prepare for general distribution a condensed version of Professor Webster's lectures, and will also cooperate directly with governmental air raid precaution officers.

The committee on postwar problems and reconstruction is actively considering the various moves now being made by the government and private industry in relation to its main topic. The industrial relations group is charged with making a continuous study of industrial relations in Canada, to advise the Council of the Institute from time to time as to what attitude the Institute should take in relation to such developments and in what manner the Institute might serve the public interest. All publications and actions relating to its work will be reported to the Institute as a whole.

John E. Armstrong, chief engineer of the Canadian Pacific Railway, of Montreal, is chairman of the Civil Defense Committee; Warren E. Miller, city engineer of St. Thomas, Ontario, is head of the postwar reconstruction and re-establishment group, and Willis MacLachlan, secretary-treasurer of the Electrical Employers Association of Ontario, at Toronto, is head of the third committee. Committee membership covers the whole dominion, and includes some non-members of the Institute.

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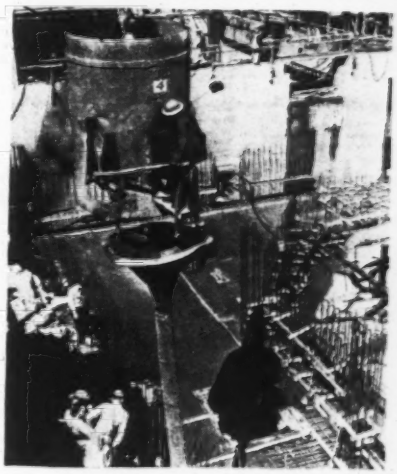
Use timber to reopen damaged stone arch bridge

The famous "Old Jug" bridge over the Monocracy River at Frederick, Md., which collapsed some months ago (*ENR*, June 18, p. 984), has been put back in service, the Maryland State Road Commission announced.

When a span near the center of the 134-year old structure gave way, plans were made to replace it with a new bridge farther upstream. However, difficulties in obtaining materials dictated patching up the ancient bridge for further use.

A timber structure has been built on the old masonry foundation to carry traffic across three spans destroyed in the collapse and subsequent safety operations by state highway commission engineers.



Bucket with funnel hastens concrete placing

A precarious perch is occupied by the workman above for dumping concrete in walls of the new power house on the east end of Grand Coulee Dam. The funnel and flexible tube travel with the bucket and make it possible to spot the bucket quickly for effective dumping in the bottom of the forms without spattering.

All steel and zinc placed in "most critical" class

All steel and zinc have been placed in Group 1—materials of which supplies are inadequate for war and most essential uses—in the fifth provisional report on relative scarcity of materials issued by the conservation and substitution branch, conservation division, War Production Board.

Scrap materials, such as iron, steel, and rubber, also fell into this "insufficient for essential uses" category. In previous reports (*ENR*—July 16, p 74, and previous), at least some types of these materials remained on the "available" classification.

Still listed as available for civilian use are the mass products of coal mines, oil fields, quarries, forest and field, with few metals or chemicals included. These items are recommended as first source of substitute materials.

New zoning plan submitted by Tampa commission

The Tampa, Fla., Zoning Commission, appointed two years ago to determine best means of controlling the city's growth and development, recently announced it had completed a tentative plan and began holding a series of hearings for property owners.

The plan proposed would set up ten zones, the first three being for small residential units, and others including multiple family residences, commercial and business areas, etc.

The zoning study developed that there are more than 19,000 single family homes in the city.

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Capital's sewage adds to pollution of Potomac

Although officials of the District of Columbia have known for some time that the tremendous increase in the city's population will add greatly to pollution problems in the Potomac River, they envision no change in the situation for the duration of the war.

J. B. Gordon, district sanitary engineer, said last week that although he and others still feel that the river should be freed of as much sewage as possible, there were no towns below Washington obtaining water from the river, and thus no great harm would be done at present by failure to take additional measures for sewage purification.

The District has estimated that it would cost $4,000,000 to build additional underground tanks for sewage disposal, if needed materials were available.

The present sewage plant was designed to take care of an anticipated population peak of 650,000 in 1950. The 1940 census listed Washington's actual population at 663,091, and the influx of new residents in the last 18 months now finds the District with an estimated population of more than 800,000 persons.

Discussing the situation before the House Committee on Public Buildings and Grounds, Mr. Gordon said that the only alternative to spending the $4,000,000 for additional sewage disposal facilities, or expending $500,000 for chlorination treatment, is to let a large degree of pollution go into the Potomac River.

"We are still concerned about dumping this sewage on communities downstream," Mr. Gordon said. He said he believed that the added pollution would not affect the shad and oyster fisheries.

Meanwhile the Interstate Commerce Commission has initiated studies with a view toward post-war treatment of pollution along the entire Potomac basin, to be used as a basis for recommendations for post-war work.

BRIEF NEWS

THE largest of a series of four flood control and power dams at points on the Colorado River at and above Austin, Texas, has been named officially Mansfield Dam, to honor Congressman J. J. Mansfield of Texas, chairman of the House Rivers and Harbors Committee. The Mansfield Dam and power plant, built at a cost of $29,620,000 by the Lower Colorado River Authority, was completed in March, 1942. The dam is 6,810 ft. long and forms a lake 65 miles long and eight miles wide.

MINING region roads are to be given preferred attention in construction and reconditioning for the first time by the Mexican government, according to the Ministry of Communications and Public Works. The 1943 federal budget includes an allotment of $2,250,000 for this purpose. Mining interests recently appealed to the government for adequate transportation facilities, contending these services are essential to the nation's war effort. The road improvement program is scheduled to start in early January.

PAVING construction work on the Wilbur Cross Highway near Meriden, Conn., has been suspended on the order of Highway Commissioner William J. Cox. Department engineers will complete plans and designs for the uncomplete sections so that work can be started as soon as materials are available.

FOLLOWING a preliminary meeting held on April 21, a committee representing Ontario, Canada, employers and employees in the building trades, met at Toronto last month to discuss proposed amended legislation regarding the apprenticeship system in the construction industry. The group, headed by Joseph M. Piggott, president of Wartime Housing, Ltd., will draw up recommendations to guide the Ontario Minister of Labor in drafting the proposed law.

BIDS for the contract to construct additional sewage facilities at Norfolk, Va., will be opened at the regional office of the Federal Works Agency in Richmond on Sept. 8, according to C. L. Vickers, assistant regional director, FWA. Plans call for installation of a sewer force main consisting of about 4,C30 ft. of 20-in. and 3,200 ft. of 16-in. asbestos pipe to connect the municipal sewerage system with a federal housing community under construction on the outskirts of the city.

HIGHWAY construction for the season, to the end of July, totaled 92.61 mi. of new pavement in Pennsylvania, as compared with more than 171 mi. for the same time last year, according to the state Department of Highways. Most of this mileage was on projects for which contracts had been awarded last year.

THE Butte County, Cal., board of supervisors has approved the organization of the Gridley and West Biggs Water District, which will purchase from 28 to 30 percent of the water rights and facilities of the Sutter Butte Canal Co., including the Hazelbush Dam in the Feather River. Purchase price will be about $500,000.

MORE than 300 employees of the Milwaukee waterworks department have petitioned the common council for a wage increase of not less than $20 a month for employees earning less than $200 a month. This raise would be in addition to the bonus recently granted to compensate for increased cost of living.

DESPITE recent heavy rains, New York City's upstate reservoirs are only 70 percent filled, Patrick Quilty, commissioner of water supply, gas and electricity said last week. Mr. Quilty explained that several years of drought have lowered the reservoirs below the ability of the rainfall to fill them. He recommended continuation of a current water saving campaign.

Speeding the war effort:

Bending every possible effort toward strengthening America's war participation, engineers and constructors throughout the nation are advancing new production ideas, new methods of doing their jobs, finding new sources and uses for critical materials. Some of the results last week were:

The Chicago Plan Commission invited architects in the city to submit sketches and studies for rebuilding the blighted areas in which a seventh of the city's population is said to live. T. T. McCrosky, executive director of the commission, said the group will welcome the ideas of every practical builder and planner for reconstruction. "We desire the architects to select specific areas with which each is familiar, and to give us concrete ideas of how he thinks each area can be rebuilt."

On the basis of a report prepared by the WPA, the commission said that nearly half a million persons live in 10 sq.mi. of "blighted areas" and more than half the city's population lives in areas called "near blight" and "just deteriorating."

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The appearance of women in the civil engineering field in large numbers was forecast by J. E. Hannum, assistant dean of engineering at Alabama Polytechnic Institute, at Auburn. "According to a study made recently, 82,000 engineers of all types must be found in 1942," Dean Hannum said, "and the trouble is that there are only about 15,000 such engineers graduating from the colleges in the United States this year. Since selective service is drawing more and more on the manpower of the nation, women must take a larger part in war industry. Therefore, women may be the solution to the problem of finding more engineers. Many have already completed courses in drafting and any woman who is good in mathematics and science could certainly qualify to take engineering work."

On the same subject C. C. Miner, chief of the Maps and Surveys Division of the Tennessee Valley Authority, commented that women whom he had called upon to replace male draftsmen and engineers taken into the armed services have proved to be as good as the men they replaced, and "a lot better to look at."

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The search for new sources of war-needed minerals was boosted with the announcement that engineers and geologists of the Bureau of Mines and the Geological Survey have blocked out more than 500,000 tons of bauxite ore in two counties in Georgia. The deposits are located in the Andersonville district of Sumter and Macon Counties, in west central Georgia. As soon as the government's exploratory work is completed, all essential information will be turned over to the owners of the property on which drilling was done. It is anticipated that the bauxite will be mined promptly. Strip mining of iron ore deposits covering about 1,600 acres near Jacksonville, Tex., is expected to start soon by the Sheffield Steel Co. Mining engineers estimate that the 1,600 acres contain between 2,000,000 and 3,000,000 tons of iron ore.

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On the salvage front, new sources of old iron and steel continue to come to the fore. In Brooklyn, N. Y., the borough president's office directed salvage crews in ripping up nearly 100 miles of abandoned trolley rail; the City of Pittsburgh prepared diagrams to show location of about 368 tons of unused trolley rail in its streets; 15 miles of a logging railroad near Charlotte, N. C., had been offered to the war effort; the state of Maryland condemned three iron and steel bridges as scrap.

OBITUARY

Thorvald Hansen, 70, consulting engineer of Milwaukee, Wis., died Aug. 20.

Charles H. Terry, 71, retired civil engineer of Columbus, Ohio, died Aug. 20 at a hospital there.

James Edgar Abbott, 63, who supervised construction of the Houston Street Viaduct at Dallas, Tex., then the largest single concrete span in the world, died Aug. 24 at Dallas. As a partner in the Brown-Abbott Construction Company, he supervised construction of numerous bridges and roads in Texas, Arkansas and Louisiana.

Clark E. Jacoby, 62, chief federal drainage engineer for the Upper Mississippi region, died Aug. 24 at his home in Milwaukee, Wis. Beginning his engineering work in Kansas City, Mo., Mr. Jacoby was one of the first engineers in the midwest to study scientific drainage.

Louis W. Marbes, 82, erecting engineer for the Vilter Manufacturing Company of Milwaukee until his retirement several years ago, died at Boltonsville, Wis., Aug. 19.

William George Hughson, 76, for 23 years a member of the staff of the Dominion Observatory at Ottawa, Canada, and an engineer in Toronto for the last seven years, died in Toronto Aug. 19.

Claude Ott, 72, widely known Indiana civil engineer and surveyor, died recently at Rockville, Ind.

Ernest M. Belk, 54, for 26 years a member of the Dallas Public Works Department and recently engaged in defense building in the Dallas area, died Aug. 22 at Gainesville, Tex.

Stephen J. Struben, 62, construction engineer for the Interstate Natural Gas Company, died recently at his home in Monroe, La.

Charles Burch, 42, civil engineer of Sarasota, Fla., died Aug. 22.

Rufus Milton Aderholt, 66, for the past 20 years construction engineer with the Gullett Gin Company, died Aug. 21 at Atlanta, Ga.

S. G. Phillips, 68, a construction engineer employed by the Chicago Mill and Lumber Company at Tallulah, La., died Aug. 19.

James F. Finn, 66, commissioner of buildings for the city of Albany, N. Y., since 1934, and builder of many Albany landmarks, died Aug. 20 at Ticonderoga, N. Y. He was head of James F. Finn and Sons, construction firms.

Harry C. Davis, 54, former Raleigh, N. C., building inspector, died at Raleigh Aug. 25.

A. B. Hailey, inspector for the materials and tests department of North Carolina State Highway & Public Works Commission at Raleigh, N. C., died Aug. 20.

Alvin H. Cortright, 74, building contractor of Miami, Fla., died recently there.

James Armstrong, 82, former general superintendent for the H. G. MacDonald & Co., Ltd., contractors at Edmonton, Alberta, died Aug. 24.

Joseph W. Coughlin, 44, general contractor of Ellenville, N. Y., died there recently.

Philip McArdle, 64, building contractor of Omaha, Neb., died Aug. 23 at his home.

Oscar E. Fosdick, 80, building contractor of Cleveland, Ohio, died Aug. 28 at Chagrin Falls, Ohio.

Joseph P. Hughes, 54, of Harrison, N. J., superintendent for the J. A. Johnson Construction Company on a project near Geneva, N. Y., died Aug. 23.

CONTRACTS AND CAPITAL

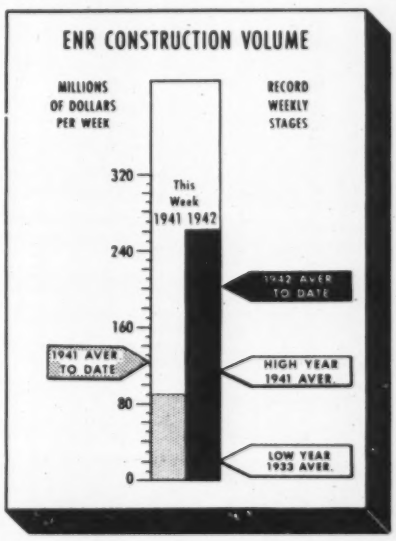
Engineering construction volume for the week, $261,671,000, tops the $200,000,000-mark for the fourth consecutive week, is 20 percent higher than the total reported a week ago, and is almost three times the volume for the short 1941 week. Public work is 21 percent higher than in the preceding week, but private construction is 16 percent lower. Federal construction accounts for 94 percent of the week's total, and exceeds its last week's mark by 22 percent.

The current week's construction brings the volume for 1942 to $7,181,568,000, an increase of 62 percent over the total for the 36-week period in 1941. Private construction, $442,786,000, is 51 percent below the period last year, but public work is 92 percent higher than a year ago due to the 143 percent gain in federal work.

In the classified construction groups, gains over the short 1941 week are in waterworks, sewerage, bridges, industrial buildings and public buildings. Gains over the short 1941 week are in waterworks, sewerage, bridges, public buildings, earthwork and drainage, streets and roads, and unclassified construction.

New capital for construction purposes for the week totals $5,280,000, a decrease of 51 percent from the volume for the corresponding 1941 week. The current week's new financing is made up of $5,000,000 in corporate security issue, and $280,000 in state and municipal bond sales.

New construction financing for the year to date, $9,524,024,000, is 76 percent above the $5,414,135,000 reported for the 36-week period last year.



CONTRACTS

(Thousands of dollars)

	Week Ending Sept. 4 1941	Aug. 27 1942	Sept. 3 1942
Federal	$54,225	$202,003	$246,581
State & Municipal	20,868	8,371	8,821
Total public	$75,093	$210,374	$255,402
Total private	14,921	7,424	6,269
TOTALS	$90,014	$217,798	$261,671
Cumulative 1942 (36 weeks)			$7,181,568
1941 (36 weeks)			$4,419,641

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1941 36 weeks	1942 36 weeks
NON-FEDERAL	$1,016,546	$557,126
Corp. Securities	302,257	169,324
State & Mun.	335,629	176,683
U.S.H.A. loans	30,399	.....
R.E.A. loans	100,500	.....
R.F.C. loans	84,761	128,419
Fed.-Aid—Highways	163,000	82,700
FEDERAL	$4,397,589	$8,966,898
TOTAL CAPITAL	$5,414,135	$9,524,024

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	Sept. '42	281.61	135.37
Building Cost	Sept. '42	225.46	121.88
Volume	Aug. 42	622	273

FHA MORTGAGES

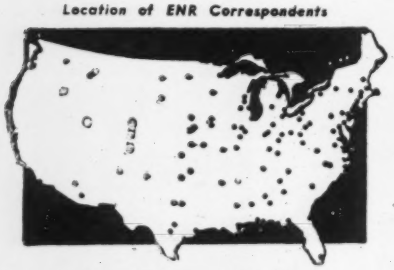
	Week Ending Aug. 30 1941	Aug. 22 1942	Aug. 29 1942
Selected for appraisal			
Title II	$27,082	$6,535	$6,296*
Title VI	$3,878	$13,649	$13,602*

*Subject to revision.

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents



Symbols and Abbreviations Include

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily
A-E-M Architect — Engineer-Management type of contract.

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply — Unclassified
Sewers, Waste Disposal — Latin America
Bridges, Grade Cross'gs — Public Buildings
Streets & Roads — Commercial Buildings
Earthwork, Waterways — Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Note: To comply with censorship requirements, adaresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

WATER SUPPLY

PROPOSED WORK

†**Ark., Jacksonville**—City, waterworks, Ark. 3-131 F, $82,750. **FWA.** Marion L. Crist, 319 Brown St., Little Rock, engr.

California—East Bay Municipal Utility Dist., 512 16 St., Oakland, rejected bids Aug. 19, 18,850 lin. ft. 2- to 8-in. c.i. watermains, Alameda and Contra Costa Counties, Inv. LS. 393. CD 8/25—ENR 8/27, under LB.

†**California**—Federal Works Agency, 1206 Santee St., Los Angeles, pump. plant. W. L. Pell, 1296 Santee St., Los Angeles, engr.

Colo., Palisade—W. J. Stebbins, city clk., exten. WW. $35,000 bonds to be issued.

Conn., Norwich—City, Water Bd., City Hall, 10 and 12 in. watermains, $53,000. Buck, Seifert & Just, 112 E. 19 St., New York, N. Y., engrs.

†**Florida**—U. S. Eng., Courthouse & Postoffice, Jacksonville, architect-engineer services by Bail, Horton & Associates, Jacksonville, water, sewerage, electric sys., Dixie Co.

†**Florida**—U. S. Eng., Courthouse & Postoffice, Jacksonville, architect-engineer services by Russel & Axon, 4903 Delmar St., St. Louis, Mo., water, sewerage, electric sys., Levy Co.

†**Fla., Panama City**—City, imprvs., exten. water supply sys. $224,000. **FWA.** CD 5/13—ENR 5/21.

†**La., New Orleans**—Sewerage & Water Bd., watermain exten., Docket La. 16-227, $15,000. **FWA.** A. B. Wood, 526 Carondelet St., engr.

†**N. C., Charlotte**—City, R. W. Flack, mgr., 22,500 ft. 12 in. watermain, $114,400. Federally financed.

†**N. C., Charlotte**—Federal Works Agency, water distr. sys. addn., 22,500 ft. 12 in. watermain. $114,400. **FWA.**

Pa., Union City—Boro Council, filtration plant. Over $15,000. C. H. Young, c/o owner, engr.

★†**R. I., Newport**—Federal Works Agency, 2 Lafayette St., New York, N. Y., earth filled dams, reservoir, 38,000 ft. 24 in. watermain, pump. station, $926,000.

R. I., North Kingston—Town, Water Works Comn., preliminary plans water sys., main to new supply Oak Hill Rd., pump. station, Belleville Sect. $15,000.

Wash., Bremerton—City, subterranean water line between Bremerton and Manette Peninsula. $46,000. FWA funds sought.

Wash., Tacoma—W. A. Kunigk, water supt., City Hall, exten. water sys. to housing projects. Over $15,000.

BIDS ASKED

Bids Asked September 8

Que., St. Hyacinthe—M. A. David, city clk., 145x145 ft. brick, filtration plant, 25 ft. high. A. Plamondon, 269 W. Mount Royal Ave., Montreal, engr. CD 7/27—ENR 8/6.

Bids Asked About September 9

†**N. C., Elizabeth City**—City, water sys. imprvs., exten., Docket 31-208. **FWA.** Extended date. Plans deposit $5. P. M. Van Camp, Southern Pines, engr. CD 8/25.

Bids Asked September 21

Conn., Hartford—Bd. Contr. & Supply, Metropolitan Dist., clearing, grubbing upper portion Barkhamsted Reservoir in Barkhamsted and Hartland., adv. ENR 9/3. CD 7/3—ENR 7/9.

Bids Asked

†**Oklahoma** — U. S. Eng., Citizens Bank Bldg., Denison, Tex., water softening plant, facilities. Plans deposit $25.

†**Texas**—U. S. Eng., Citizens Bank Bldg., Denison, water softening plant, equipment, facilities. Plans deposit $50.

Tex., Texas City—Gordy Bros., Texas City, water lines, facilities, $15,000; sanitary sewers, $25,000; natural gas lines, $25,000.

LOW BIDDERS

†**Calif., Sausalito**—Federal Works Agency, 1206 Santee St., Los Angeles, Aug. 25, c.i. pipeline from Ross Reservoir to here, Docket 4-242, Cont. 3, Inv. 6, Re-120, from M. J. Lynch, Barneveld and Oakdale Ave., San Francisco, **$83,130.** CD 8/19.

†**California**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Aug. 26, water supply sys., storm and sanitary sewers, pump houses, storage tanks, from Contracting Engineers Co., 2310½ W. Vernon Ave., Los Angeles, under **$100,000.**

†**Texas**—U. S. Eng., Fort Sam Houston, rein.-con. ground storage reservoir, Spec. 42-306, from G. W. Mitchell, Bldrs., Exchange Bldg., San Antonio, **$50,000-$100,000.** CD 8/19—ENR 8/27.

CONTRACTS AWARDED

†**California**—U. S. Eng., 751 S. Figueroa St., Los Angeles, installing water pipeline, Riverside Co., to Palm Springs Water Co., Palm Springs, under **$50,000.**

†**California**—U. S. Eng., Wright Bldg., Sacramento, water, waste water disposal and electrical distr. sys., Sacramento Co., to Harvey Holland, Sacramento, under **$50,000.**

†**Colorado**—U. S. Eng., Albuquerque, deep well pumps, Powers Co., to Worthington Pump & Mchy. Corp., 1640 Blake St., Denver, under **$50,000.**

†**Connecticut**—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., water supply, New London Co., to Guerini Construction Co., Inc., 524 River St., Dorchester, Mass. Est. **$25,000.** Bids 8/25.

†**Georgia**—U. S. Eng., Courthouse & Customhouse, Mobile, Ala., test wells, Muscogee Co., to Layne-Atlantic Co., Cromwell Rd. & Flanders Ave., Norfolk, Va., under **$50,000.**

†**Georgia**—U. S. Eng., Postoffice Bldg., Savannah, well, Bulloch Co., to L. P. Mons, Millen, under **$50,000.**

†**Idaho**—U. S. Eng., Pittock Blk., Portland, Ore., well, Ada Co., to John Cowe, 1524 Broadway Ave., Boise, under **$50,000.**

†**Louisiana**—U. S. Eng., Postoffice & Court house, Vicksburg, Miss., water [illegible] sanitary sewage collection sys., [illegible] James Co., Dyersburg, Tenn., $50,000-$100,000. Awarded 8/24.

†**Maryland**—U. S. Eng., Standard Oil Bldg., Baltimore, watermain, sanitary sewers, sewage disposal plant, Harford Co., to Joseph Matricciani & Sons, 229 S. Exeter St., Baltimore, **$50,000-$100,000.**

†**Massachusetts**—U. S. Eng., Post Office Bldg., Boston, driving and pumping test wells, Middlesex Co., to C. Reppucci & Sons, Inc., 10 Garden Ct. St., Boston, under $50,000.

†**Montana**—U. S. Eng., Administration Bldg., Fort Peck, water distr. and sanitary sewers, Valley Co., to Glazier Constr. Co., Cut Bank, **$50,000-$100,000.**

N. J., Wanaque—New Jersey Water Supply Comn., Wanaque, improvements, landscaping, drainage, roads. **$65,000.** C. Malstrom, Orange and N. Shore, Newark, WPA engr. WPA

†**New York**—U. S. Eng., 120 Wall St., New York, sinking well, installing turbine, Suffolk Co., to Duffield Constr. Co., Ronkonkoma, under **$50,000.**

Pa., Phila.—Dpt. P. Wks., City Hall, pump house, equip., to Laub Constr. Co., 1515 Walnut St., **$81,438.**

†**Rhode Island**—Federal Works Agency, 99 Chauncy St., Boston, Mass., pipeline from Tiverton to Portsmouth under Seaconet River, etc., to Gilbane Bldg. Co., Inc., 90 Caverly St., Providence, **$300,000.** C. Maguire & Associates 1515 Turks Head Bldg., Providence, engr.

†**R. I., Middleton**—Federal Works Agency, 99 Chauncy St., Boston, Mass., rein.-con. pipeline, W. Main St., earth dike, concrete work at Gardner Reservoir, to Gilbane Bldg. Co., Inc., 90 Caverly St., Providence, $420,000. C. Maguire & Associates, 1515 Turks Head Bldg., Providence, engrs.

†**South Carolina**—U. S. Eng., 33 Customhouse, drilling wells, Charleston Co., to Virginia Machinery Well Co., Inc., 1319 E. Main St., Richmond, Va., under **$50,000.**

†**South Dakota**—U. S. Eng., 1709 Jackson St., Omaha, water and sewerage sys., Davison Co., to Landon Constr. Co., Edgerton, Wis., **$100,000-$500,000.**

★†**Tennessee**—U. S. Eng., 306 Courthouse, Nashville, water distr. sys., sewage collection sys., cantonment roads, drainage, electrical distr. sys., temporary frame bldgs., Cumberland Co., to Foster & Creighton, American Natl. Bank Bldg., Nashville, **$1,000,000-$5,000,000.**

†**Tennessee**—U. S. Eng., P. O. Box 97, Memphis, water distr. and sanitary sewerage sys., to Gale Service & Construction Co., 80 E. Jackson St., Chicago, Ill., $100,000-$500,000.

†**Texas**—U. S. Eng., Citizens Bank Bldg., Denison, water storage and pump. plant, Lamar Co., to Builders Constr. Co., Perrine Bldg., Oklahoma City, Okla., **$50,000-$100,000.**

†**Texas**—U. S. Eng., Federal Bldg., Galveston, water, gas lines, sanitary sewer and storm drains, to Robischung-Kiesling Contg. Co., Houston, **$50,000-$100,000.**

†**Texas**—U. S. Eng., Cotton Exchange Bldg., San Antonio, test well, Coryell Co., to Wm. Cravens & Sons, 501 Hays St., San Antonio, under **$50,000.**

†**Texas**—U. S. Eng., San Antonio, surface storage reservoir and sewage disposal sys., Hays Co., to J. H. Blackmore & Sons, 1710 W. 5 St., Austin, **$100,000-$500,000.**

†**Washington**—U. S. Eng., Pittock Blk., Portland, Ore., water and sewerage sys., Franklin Co., to Thorburn & Logozo, Walla Walla, under **$50,000.**

†**Washington**—U. S. Eng., Textile Tower, Seattle, water distr. sys., Spokane Co., to R. L. Moss & Co., Zenith, **$100,000-$500,000.**

SEWERS, WASTE DISPOSAL

PROPOSED WORK

†**Ark., Jacksonville**—City, sewer facilities, Ark. 3-137F, $29,500. **FWA.** Marian L. Crist, 319 Brown St., Little Rock, engr.

†**Mass., East Longmeadow**—Federal Works Agency, 99 Chauncy St., Boston, sewerage treatment plant, sludge pump. equipment, piping, Mass 19-170. Tighe & Bond, 189 High St., Holyoke, engrs.

Mo., St. Charles—Voted $41,000 bonds, imprv., exten. sewer.

SEWERS, etc. (Proposed Work, Cont'd.)

N. J., Millville—Exten. sanitary sewers, $30,379. WPA. D. A. Haining, 930 Atlantic Ave., Atlantic City, WPA engr.

O., Barberton—D. Stevenson, city service dir., sewers, Johnsons Corners Dist. $180,000, WPA. R. Bushey, Barberton, engr.

Tex., San Antonio—Bexar Co. Water Imprvt. Dist. 8, c/o C. W. Fenstermaker, San Antonio, voted bonds sewage collecting lines in Terrell Hill Sect. $50,000. CD 7/8—ENR 7/16.

†Va., Norfolk—Federal Works Agency, sewage pump station, 18,000 ft. 12- to 30-in. rein.-con. force mains, $193,500. FWA.

Ont., Dundas—Sanitary sewers. $25,000. Pub. Utilities Com., c/o H. Stevens, Town Hall, engr.

Ont., Goderich — Municipality. Township Hall, sanitary sewers. $30,000. R. W. Code, Victor Bldg., London, engr.

BIDS ASKED

†N. C., Elizabeth City—City, sewerage exten., Docket NC 31-307, FWA. P. M. Van Camp, Southern Pines, engr. Bids date extended. Plans deposit $5.

Bids Asked September 15

Md., Towson—Bd. Comrs. Baltimore Co., Courthouse, sanitary sewers, vicinity Edgewater Addn., Middle River, Contr. 65-S; vicinity Rosedale, Contr. 66 S. G. W. Stephens, Jr. Courthouse, engr.

Bids Asked September 16

Calif., Los Angeles—Bd. P. Wks., sanitary sewer Riverside Dr. and Foreman Ave. Sewer Dist. $76,347. L. Aldrich, City Hall, engr. CD 6/16—ENR 6/18.

Bids Asked September 22

Calif., Los Angeles—Bd. Supervs Los Angeles Co., vitr-clay sanitary sewers in Overhill Dr., et al. Over $25,000. A. Jones, Hall of Records, engr.

Bids Asked September 22

†Va., Radford—Office H. T. Roberts, city mgr., 45,000 ft. 6 in. sewer lines, 19,800 ft. 8- to 30-in. terra cotta or concrete lines, Docket Va. 44-148. $231,000. Plans deposit $20. Wiley & Wilson, Peoples Natl. Bank Bldg., Lynchburg, engrs. CD 9/22—ENR 9/25.

LOW BIDDERS

N. J., Jersey City—Bd. Freeholders Hudson Co., new drainage sys. for roadway from Baldwin Ave. to Montgomery St., from Clinton Asphalt Co., 308 16 St., Union City, $25,000.

†Texas—U. S. Eng., Fort Sam Houston, Aug. 22, sewage treatment plant, Spec. 42-306, from J. R. Blackmore & Sons, 1711 W. 5 St., Austin, $100,000-$500,000.

CONTRACTS AWARDED

†Ala., Anniston—City, sewerage sys., Docket Ala. 1-160, to So. Bitumen Co., 3200 Ave. A, Birmingham. FWA. CD 5/19—ENR 5/21, under LB.

★**†Arizona**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., sewerage, water, street sys., Yuma Co., to R. A. Conyes, R. O. Dixson, 3901 Medford St., Los Angeles, Calif., and Werner & Webb, 1116 N. Marsfield St., Los Angeles, Calif., $500,000-$1,000,000. CD 8/26 under unclassified LB.

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, sewer and water sys., Inyo Co., to H. C. Werner and Spencer Webb, 1116 N. Mansfield Ave., Los Angeles, $50,000-$100,000.

†California—U. S. Eng., 74 New Montgomery St., San Francisco, sewage collection and water distr. sys., to McGuire & Hester, 796 66 Ave., Oakland. Awarded 8/25.

★**†Georgia**—U. S. Eng., Bellcraft, storm and sanitary sewers, water distr. sys., to Couch Const. Co., Dothan, Ala.; pipe valves, fittings in boiler plant, to Grinnell Co., Inc., 240 Highland Ave. N.E., Atlanta, each contract less than $1,000,000.

†Idaho—U. S. Eng., Pittock Blk., Portland, Ore., sewer and water sys., Ada Co., to Intermountain Plumbing & Heating Co., 145 S. 3 Ave., Boise, under $50,000.

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, sewage sys., Rapides Parish, to C. H. Treadwell, 1523 Centenary Blvd., Shreveport, $100,000-$500,000.

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, sanitary sewer and water distr. sys., Rapides Parish, to Barnet Brezner, Alexandria, $100,000-$500,000.

Massachusetts—Industrial Company, pump. station for salt water and sewerage, to John F. Griffin Co., 238 Main St., Cambridge. Est. $25,000. CD 8/20—ENR 8/28.

N. J., Bloomfield—Town, rein.-con. sewers, Pleasant Ave., Fritz and Ketner Sts., WPA. $62,500. CD 8/21—ENR 8/27.

N. J., Millville—Town, exten. sanitary sewers, WPA. $30,379. CD 8/27—ENR 9/3.

†New York — U. S. Eng., Chimes Bldg., Syracuse, sewage disposal sys., Onondaga Co., to Antonio Mondo, 2614 Lodi St., Syracuse, under $50,000.

†Ohio—U. S. Eng., 700 Union Guardian Bldg., Detroit, Mich., storm sewers and gas pipe lines, Allen Co., to G. H. Leach Co., De Graff, under $50,000.

†Oklahoma—Reconstruction Finance Corp., 811 Vermont Ave. N.W., Wash., D. C., sanitary sewer and water lines, facilities, to Brown & Bellows, Greenwood & Industrial Blvd., Houston. $58,245 and $22,600 respectively. Additional to CD 8/13—ENR 8/27, under CA.

Pa., Emporium—Boro. Council, rebuilding sewers, streets, bridges, miscellaneous repairs, retaining walls, etc., own forces. $45,000. CD 8/24—ENR 8/27.

†Texas—U. S. Eng., Albuquerque, N. M., sanitary sewer exten., to P. C. Sorenson, Pecos, under $50,000.

†Texas—U. S. Eng., Citizens Bank Bldg., Denison, sewage disposal plant, water pump. plant, and water storage facilities, to Standard Paving Co., Fort Worth, $100,000-$500,000.

†Washington—U. S. Eng., Textile Tower, Seattle, sewers, sewage pump. plant, to L. Colucio, 512 21 Ave. S., Seattle. $50,000-$100,000.

†W. Va., Point Pleasant — West Virginia State Health Dpt., Richmond, addnl. sewerage sys., to Coffey Constr. Co. and S. R. Bishop, Charleston, $96,422. FWA.

†Wisconsin—U. S. Eng., Federal Bldg., Milwaukee, sewage treatment plant, ejector station, sewer work, Dane Co., to Gray-Robinson Constr. Co., Manitowoc, under $50,000.

†Wisconsin—U. S. Eng., Federal Bldg., Milwaukee, sewer and water distr. sys., Milwaukee Co., to W. J. Lazynski, Inc., 202 Centre St., Milwaukee, under $50,000.

N. S., New Aberdeen—Sanitary sewers, day labor. $25,000. J. MacKenzie, Town Hall, engr.

BRIDGES, GRADE CROSSINGS

PROPOSED WORK

Idaho—A. C. Merritt, comr. P. Wks., Boise, received no bids Aug. 21, 838 ft. timber bridge across Snake River and approaches 0.634 mi. Burley-Paul Rd., Cassia and Minidoka Counties. CD 8/11—ENR 8/13.

Neb., Lincoln—Chicago, Burlington & Quincy R.R. F. T. Darrow, ch. engr., 547 W. Jackson Blvd., Chicago, Ill., widening, imprv. steel frame viaduct, 7 and P Sts. $30,000.

New Mexico—B. G. Dwyre, engr., State Hy. Dpt., Santa Fe, rejected bids Aug. 28, concrete, timber bridge Eddy Co. $100,000. CD 8/18—ENR 8/20.

N. Y., Falconer—Chautauqua Co. Hy. Dpt., 454 N. Work St., repairing, reconstructing bridges. $25,000-$30,000. B. Chilson, co. engr.

N. Y., Fredonia—Pomfret Town Bd., Fredonia, repairing, replacing flood damaged bridges, culverts, roads, fills. $40,000. K. F. Hayward, c/o owner, hy. supt.

Newfoundland, St. Johns—Newfoundland Govt., St. Johns, imprv. bridges, roads. $550,000 voted. Dpt. P. Wks., St. Johns, engrs.

BIDS ASKED

Bids Asked September 10

North Carolina—State Hy. & P. Wks. Comn., Raleigh, widening bridge over Drowning Creek at Moore-Richmond Co. line on U. S. 1, Project 6674, Richmond and Moore Counties. $25,000. W. V. Baise, Raleigh, engr.

Bids Asked September 16

California—State Div. Hys., Sacramento, 969 ft. timber, steel, concrete bridge over Albion River at Albion Mendocino Co., (I-Men-56-D). Over $25,000. C. H. Purcell, state hy. engr.

LOW BIDDERS

La., Franklin—St. Marys Parish, 6,600 ft. piling for bridge, from Thorgerson, Scott & Sumerall, Berwick.

CONTRACTS AWARDED

†Alabama—U. S. Eng., Courthouse & Customhouse, Mobile, repairing bridges, culverts, road imprvs., Dale Co., to Angus A. Smith, Hartford, under $50,000.

★**Maryland**—State Roads Comn., Baltimore, dual structures over Penn R.R. near Short Lane on Boothly Hill Rd., Hartford Co., to F. Carozza & Son Inc., 7 W. 25 St., Baltimore, $597,540. Bids 7/28. CD 7/21—ENR 8/6, under LB.

★**Pennsylvania**—State Hy. Dpt., I. L. Highes, secy., Harrisburg, 5 concrete structures, grading, draining, etc. 19,702 ft. Luzerne Co., to Laub & Collins, Box 546, Somerset, $608,621. Bids 8/7. CD 8/10—ENR 8/13, under LB.

†Tenn., Camden—Tennessee Valley Auth., Kentucky, 200 ft. concrete steel bridge, to Porter-Dewitt Constr. Co., Poplar Bluff, Mo. Est. $100,000.

STREETS AND ROADS

BIDS ASKED

Bids Asked September 8

Iowa—State Hy. Comn., Ames, paving 1.54 mi. DA-WR 3, Woodbury Co., approx. $100,000. Gravel surfacing 4.615 mi. FSN-798, Dallas Co., surfacing 3 mi. FSN-818, Boone Co.; maintenance resurfacing 0.3 mi. M-4341, Guthrie Co., 8.1 mi. M-4342, Madison Co., 4.3 mi. M-4237, Taylor Co., 12.6 mi. M-4342, Shelby Co.; maintenance gravel-stock piling on M-3265, Monona Co.; maintenance bituminous resurfacing on M-5221; AHQ-1C, KEO-1A, Keomah Park, both Mahaska Co., Ahquabi Park in Warren Co., STO-1B, Stone Park in Woodbury Co., and WAT-1C Waubonsie Park in Fremont Co. F. R. White, Ames, ch. engr.

La., Grundy Center—Grundy Co., graveling 17 mi. roads, over $25,000.

Bids Asked September 10

North Carolina—State Hy. & Pb. Wks. Comn., Raleigh, grading, concrete paving 0.46 mi. Project 5060, Alamance Co. $25,000, extended date; sand asphalt or bitum. pavement mix on 5.64 mi. Project 277, Cumberland Co., $75,000-$100,000. W. V. Baise, Raleigh, engr. CD 9/1.

Bids Asked September 11

Minnesota—State Hy. Dpt., St. Paul, grading, curbing, guttering, signal installations, etc., 0.7 mi. S.P. 6212-21 (TH 36-118), S.P. 6202-14 (TH 8-63) and S.P. 6204-07 (TH 10-62); S.P. 6224-03 (TH 96-96), S.P. 6212-30 (TH 36-118) and S.P. 6216-14 (TH 51-125); S.P. 6216 (TH 51-125); S.P. 8508-14 (TH 74-74) in Elba; 9.5 mi. S.P. 6302 (TH 59-174). J. T. Ellison, ch. engr.

Bids Asked September 15

Indiana—State Hy. Comn., S. G. Hadden, chn., Indianapolis, concrete paving Chippewa Ave. from Penn. R.R. to Michigan St., and Main St. from Chippewa Ave. to Woodside St., in South Bend, St. Joseph Co.; bituminous concrete paving, resurfacing Tibbs Ave. from 10 to 16 Sts., in Indianapolis; concrete paving W. 10 St. from near Winton Ave. in Speedway City to Tibbs Ave., Michigan St. from Little Eagle Creek to Leutt St., Indianapolis, both Marion Co.; concrete paving Diamond Ave., from Stringtown Rd. to U.S. Rd. 41 at Evansville, etc., Vanderburgh Co.; 1.5 mi. north of U.S. Rd. 36 to 1.3 mi. south of Newport, Vermillion Co.; from Camp Atterbury north to relocated State Rd. 252, Johnson Co.; from State Rd. 135 south Trafalgar to State Rd. 31 near Amity, Johnson Co.; bituminous retread paving 1.5 mi. west of Columbus, Bartholomew Co.; erosion control 15 mi. State Rd. 40 from Brazil to Putnam Co., Clay and Putnam Counties; on Marion by-pass from State Rd. 9 south to State Rd. 9 north, near Marion, Grant Co. R. Bower, c/o owner, ch. engr.

Bids Asked September 16

California—State Div. Hys., Sacramento, grading, asphalt on concrete paving 1.9 mi. between Salinas and 2 mi. south, Monterey Co.; grading, concrete, asphaltic concrete and plant mixed surfacing 0.6 mi. Marin Co.; grading, concrete paving 4.9 mi. between Show Rd. and 2¼ mi. south of Shasta Rd., Kern Co. Over $75,000. C. H. Purcell, state hy. engr.

Kentucky—Dpt. Hys., Frankfort, bituminous surfacing 0.398 mi. DA-WI 11 (Unit 1), SP 56-418, 56-428, Jefferson Co., 4.141 mi. Covington-Lexington Rd., SN-SP 8-10, Boone Co. 4.244 mi. Grayson-Louisa Rd., SP 22-48, Carter Co.; 2.01 mi. Fancy Farm-Lowes Rd., SP 42-548, Graves Co.; 1.2 mi. Shuffs Lane Rd., RH 26, Jefferson Co.; 2.31 mi. Winchester Ave. in Ashland, SP 10-5, 10-45 and 10-25, Boyd Co.; grading, draining 1.772 mi. Richmond-Lexington Rd., SN-FA 124 A(3), SN 24-101, SP 76-151, SP 24-104, Madison and Fayette Counties; 2.144 mi. Williamsburg-Jellico Rd., SN-FA 23 B(2), SP 118-100, 118-260, Whitley Co.; surface widening 0.182 mi. Russell-Ashland Rd., SP 45-31, Greenup Co.

Bids Asked

Iowa—State Hy. Comn., Ames, rejected bids Aug. 25, imprv. 23.3 mi. Buchanan Co. Received no bids for roads in Boone, Henry, Lee and Lucas Counties. CD 8/17—ENR 8/20.

Minnesota—State Hy. Dpt., St. Paul, rejected bids Aug. 7, imprv. 2.9 mi. S.P. 2801-10 (TH 16-9) and S.P. 2805-25 A and B (TH 61-3), SN-A-FAP 147 (6) and 371 A (5). CD 8/19—ENR 8/27, under LB.

Nebraska—State Dpt. Roads & Irrigation, W. G. Scott, state engr., Lincoln, rejected bids Aug. 20, imprv. 1.4 mi. DA-WI 9. CD 8/12.

New Mexico—B. G. Dwyre, engr., State Hy. Dpt., Santa Fe, rejected bids Aug. 28, imprv. 5.256 mi. Eddy Co. $100,000. CD 8/18—ENR 8/20.

LOW BIDDERS

California—Joint Hy. Dist. 10, T. L. Hickey, secy., City Hall, San Francisco, Aug. 26, pav-

STREETS, etc. (Low Bidders, Cont'd.)

ing 2.91 mi. Contr. 4, Junipero Serro Blvd. Exten., San Mateo Co., from California Paving Co., 363 N. El Dorado St., San Mateo, **$35,054.** J. J. Casey, City Hall, San Francisco, dist. engr.

Connecticut—J. W. Cox, Comn. State Hy., Dpt., Hartford, Aug. 27, concrete paving 1,255 ft. Project 34-60, Danbury, from D. V. Frione & Co., Inc., 67 Foxon Rd., New Haven, **$39,548.** CD 8/21.

D. C., Wash.—District Comrs., Dist. Bldg., directional and pedestrian islands, from Donaldson Paving Co., 207 Potomac Ave. S.W., **$39,498.** Est. $39,700.

Idaho—A. C. Merritt, comr. P. Wks., Boise, Aug. 21, grading, crushed gravel surfacing 6.423 mi. Twin Buttes and Shelly-New Sweden Hys., Bonneville Co., from Nick Burggraf, Inc., Idaho Falls, **$113,316.**

Illinois—State Dpt. P. Wks. & Bldgs., Div. Hys., Springfield, Aug. 21, imprv. 5.59 mi. Fayette Co., from C. J. Moritz, Inc., Effingham, **$86,070*****2.28 mi. Fayette Co., from Mautz & Oren, Inc., Effingham, **$293,105***** 1.81 mi. Bureau Co., from A. P. Wetherby Constr. Co., 212 State St., Ottawa, **$44,171.** Received no bids Combination 1 Fayette Co. and 4.41 mi. Pulaski Co. CD 8/13.

Indiana — State Hy. Comn., Indianapolis, Aug. 25, imprv. 5.9 mi. Vigo Co., from Wabash Valley Asphalt Co., 10 and Chestnut Sts., Terre Haute, **$39,288,** est. $82,038***7.5 mi. Hendricks and Putnam Counties, from Indiana Asphalt Paving Co., 2810 Columbia Ave., Indianapolis, **$78,803,** est. $82,038***5.45 mi. Starke Co., from Hipskind Drainage Co., 1725 Winter St., Fort Wayne, **$109,918,** est. $113,829***15.64 mi. Starke and La Porte Counties, from Brooks Constr. Co., 1123 Barthold St., **$131,620,** est. $138,980***9.16 mi. Allen Co., from Meshberger Bros., Linn Grove, **$115,837,** est. $122,316***9.05 mi. Crawford and Harrison Counties, from L. P. Cavett Co., 505 Shepard Ave., Lockland, O., **$72,241,** est. $79,083. Rejected bids imprv. 4 mi. La Porte Co., will readvertise. CD 8/11—ENR 8/13.

Kentucky—Dpt. Hys., Frankfort, Aug. 28, imprv. 9.271 mi. Boyle and Lincoln Counties, from Carey Constr. Co., 613 Citizens Bank Bldg., Lexington, **$55,560*****3.542 mi. Laurel Co., from Andrews Asphalt Paving Co., 808 1st Natl. Bank Bldg., Hamilton, O., **$40,869***** 10.549 mi. Lincoln Co., from White Consolidated, Inc., 1735 W. Fullerton St., Chicago, Ill., **$64,631*****3.754 mi. Warren Co., from Kentucky Road Oiling Co., Louisville Park, $261,028. CD 8/7—ENR 8/13.

Michigan—State Hy. Dpt., Lansing, Aug. 19, imprv. 1.193 mi. Branch Co., from John Yerington, Territorial Rd., RFD 2, Benton Harbor, **$59,804*****6.551 mi. Sanilac Co., from E. Closser, 11325 Robson Ave., Detroit, **$185,-954*****2.881 mi. Tuscola Co., from Alpine Excavating Co., Box 337, St. Ignace, **$72,781.** CD 8/13.

Minnesota—State Hy. Dpt., St. Paul, Aug. 14, imprv. 5.2 mi. S.P. 8710-08 (TH 75-6), SN-A-FAP 445(4), from Hector Constr. Co., Hector, **$39,664.** CD 7/28—ENR 7/30.

★**N. Y., Jamaica**—Transit Comn., 270 Madison Ave., New York, Aug. 25, permanent hy. facilities Georgia Ave., to Van Wyck Blvd., Contr. 11, for Long Island R.R. Co., Penna. Sta., New York, from Rusciano & Son Corp., 728 E. 212 St., New York. Est. **$2,000,000.** CD 8/20.

†Texas—U. S. Eng., Fort Sam Houston, curbing, guttering, asphalt topping streets, Spec. 42-291, from J. O. Mack, Jr., Gunter Hotel, San Antonio, under **$50,000.**

†Texas—U. S. Eng., Fort Sam Houston, Aug. 16, surfacing, Spec. 42-268, from Holland Page, San Antonio Hgy., **Austin, $50,000-$100,000.** Bids 8/16. CD 8/11.

†Virginia—Pub. Roads Admin., 515 14 St. N.W., Wash., D. C., Aug. 25, DA WR 8, Paving 26, War Dpt. Rd. Network, from Wilmoth Paving Co., 60 P St. S. E., Wash., D. C., **$207,-835.** CD 8/14.

Virginia—State Dpt. Hys., Richmond, Aug. 25, imprv. 2 mi. Allegheny Co., from Echols Bros., Inc., Staunton, **$99,123.** CD 8/12—ENR 8/20.

Washington—State Hy. Dpt., B. Bantz, dir., Olympia, Aug. 25, imprv. Rd. 13-A, Grays Harbor Co., from Goetz & Brennan, Seaboard Bldg., Seattle, **$180,606.** CD 8/10—ENR 8/13.

CONTRACTS AWARDED

†Alabama—U. S. Eng., Courthouse and Customhouse, Mobile, filling and grading, Montgomery Co., to Hooper Constr. Co., 1125 Kings Ave. S. Jacksonville, Fla, under **$50,000.**

★**†Alabama**—U. S. Eng., 494 Spring St. N.W., Atlanta, Ga., streets & drainage, **Etowah** Co., to Ledbetter Johnson Contractors, **Rome,** Ga., **$500,000-$1,000,000.**

†Arkansas—U. S. Eng., Gay Bldg., **Little** Rock, roads, clearing, grading, **Pulaski Co.,** to D. F. Jones Constr. Co., Southern Natl. Bldg., Little Rock, under **$50,000.**

Arkansas—State Hy. Dpt., Little Rock, concrete paving 2.973 mi. Jackson Co., to Gregory-Hogan Constr. Co., 115 N. Spring St., Little Rock, $191,712.

†Arkansas—U. S. Eng., Gay Bldg., Little **Rock, grading,** drainage, to Crittenden Constr. Co., West Memphis, under **$200,000.**

★**California**—State Div. Hys., Sacramento, imprvs. 4.7 mi. San Diego Co., to V. R. Dennis Constr. Co., Box F, Hillcrest Station, San Diego, **$694,167.** Bids 8/6. Awarded 8/28. CD 8/11—ENR 8/13, under LB.

★**California**—State Div. Hys., Sacramento, imprv. 3.5 mi. San Diego Co., to R. E. Hazard & Sons, Box 1510, San Diego, **$715,708.** Bid 7/20, awarded 8/28. CD 8/4—ENR 8/6, under LB.

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, roads, parking aprons, grading, Los Angeles Co., to Theron N. Bohannan, Van Nuys, under **$50,000.**

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, street imprvs., Contr. 2896, to R. A. Conyes & R. O. Dixson, 3901 Medford St., **Los Angeles,** under **$50,000.** Awarded 8/20.

★**†California**—U. S. Eng., Wright Bldg., Sacramento, roads, Yuba Co., to Marshall Hanrahan, Redwood City, **$500,000-$1,000,000.**

†California—U. S. Eng., Wright Bldg., Sacramento, road surfacing, Merced Co., to Jack Shields, Bakersfield, **$100,000-$500,000.**

†Colorado—U. S. Eng., Postmaster, Denver, walks, drainage, Denver Co., walks and drainage, Denver Co., to J. R. Phillips, Aurora, under **$50,000.**

†Connecticut—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., roads, to Lane Constr. Co., 37 Colony St., Meriden. Est. over **$25,000.** Bids 8/24.

†Florida—U. S. Eng., Courthouse & Postoffice, Jacksonville, clearing and grubbing, Monroe Co., to Belcher Oil Co., 1217 Biscayne Blvd., Miami, under **$50,000.**

†Florida—U. S. Eng., Courthouse and Customhouse, Mobile, Ala., shell stabilization for roads and runways, Franklin Co., to Cue & Favre, Inc., Bay St. Louis, Miss., under **$50,000.**

†Florida—U. S. Eng., Courthouse and Customhouse, Mobile, Ala., grading, paving, drainage, Okaloosa Co., to Noonan Constr. Co., Pensacola, **$50,000-$100,000.**

†Florida—U. S. Eng., Courthouse and Postoffice, Jacksonville, clearing, grubbing, Hernando Co., to Cone & Manly, Caesar Ave. and Cumberland St., Tampa, under **$50,000.**

†Georgia—U. S. Eng., 494 Spring St., Atlanta, roads, pavements, stone base, surface treatment, Fulton Co., to Bradfield & Kelley, LaGrange, **$50,000-$100,000.**

†Georgia—U. S. Eng., Postoffice Bldg., Savannah, grading, draining, Liberty Co., to Hardaway Contg. Co., Columbus, **$100,000-$500,000.**

†Illinois—U. S. Eng., 520 Merchandise Mart, Chicago, grading, Cook Co., to Thomas M. Madden Co., 4612 W. Van Buren St., Chicago, **$100,000-$500-000.**

†Illinois—U. S. Eng., Courthouse and Customhouse, St. Louis, Mo., pavement and floors, Macon Co., to Swords McDougal Co., Peoria, and R. A. Cullinan & Son, Tremont, **$100,000-$500,000.**

†Illinois—U. S. Eng., Clock Tower Bldg., Rock Island, crushed rock roads, Carroll Co., to Stewart Watson, Barnevald, Wis., under **$50,000.**

Ill., Freeport—G. W. Loveland, city clk., paving E. Stephenson St. and N. Henderson Ave., to Geneva Constr. Co., Aurora, **$26,718.**

Ill., Harvey—Bituminous surfacing streets, to S. G. Hayes & Co., 910 S. Michigan Ave., Chicago, **$25,000.** CD 8/25.

Ill., Joliet—Will Co., bituminous surfacing roads, to Walsh Oil Co., 82 W. Jefferson St., **$88,578.** Bids 8/21.

Ill., Morrison—Whiteside Co., grading, imprv. roads, to Central Eng. Co., 2531 Rockingham St., Davenport, Ia. **$50,677.** Bids 8/11. CD 8/4—ENR 8/6.

Ill., Mount Carroll—Carroll Co., S. C. Campbell, supt. hys., surfacing roads to E. F. Gallagher, Oregon, **$65,893.** Bids 8/13. CD 8/11.

Ia., Oskaloosa—Mahaska Co., grading 5 mi. secondary roads, to R. J. Ryan, Inc., Ottumwa, **$28,381.** H. E. Hansel, co. engr.

†Kansas—U. S. Eng., 612 Davidson Bldg., Kansas City, Mo., roads, Geary Co., to Mike Haase, Kansas City, Mo., **$100,000-$500,000.**

Kansas—State Hy. Dpt., Goodland, imprv. 9.237 mi. Sherman Co., to D. G. Hansen, Logan, **$105,908.** Bids 8/20, awarded 8/24. CD 8/12.

†Louisiana—U. S. Eng., foot Prytania St., New Orleans, roads, to Roy M. Lilly, 1255 Ingleside Dr., Baton Rouge. Awarded 8/21.

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, grading, surfacing, to Pierson Constr. Co., Baton Rouge, **$50,000-$100,000.** Awarded 8/21.

Louisiana—Dpt. Hys., Baton Rouge, Gardner-Alexandria Hy., to Robinson & Young, Louisiana Natl. Bank Bldg., Baton Rouge, **$140,203.** Awarded 8/24. CD 8/5—ENR 8/13.

†Maryland—U. S. Eng., Standard Oil Bldg., Baltimore, road, walks, Allegany Co., to Heising Bros., Inc., Wash. D. C., **$100,000-$500,000.**

†Massachusetts—U. S. Eng., Park Square Bldg., Boston, grading, surfacing, Inv. 175-43-Neg 45, to David Nassif Co., 20 Provident St., Boston. Est. **$100,000-$500,000.** Bids 8/22.

†Montana—U. S. Eng., Admin. Bldg., Fort Peck, grade drainage, facing roads, Valley Co., to Inland Engineering Co., 3867 Leavenworth St., Omaha, **$50,000.**

†Nebraska—U. S. Eng., 1709 Dixon St., Omaha, addnl. roads parking areas, Hurt Butte Co., to E. C. Gee, Shenandoah, Ia. **$100,000-$500,000.**

★**†New Jersey**—U. S. Eng., Wall St., New York, N. Y., clearing, grading, surfacing and temporary frame bldg., Essex Co., to Santaniello Bros., 16 Whyte St., Essex City. **$500,000-$1,000,000.**

†New Jersey—Ordnance Dept., Raritan Arsenal, Raritan, excavating, grading, landscaping, drainage, roads, **WPA,** $133,000. C. H. Weltzen, Chestnut and Hamilton Aves., Trenton, engr.

N. J., Bloomfield—Town, regrading, paving, sidewalks, piping, catchbasins, Hazelwood Ave., State, Park and Orchard Sts., to Osborne & Marsellis Corp., Preston Pl., Upper Montclair. J. W. O'Brieter, Municipal bldg., engr.

N. J., Bloomfield—Essex Co., repaving, curbing, seal coating E. Passaic Ave., to Petrozalo Bros., Inc., 362 Lackawanna Pl., South Orange, **$25,000** plus. Bids 8/4. CD 7/28—ENR 7/30.

N. J., East Orange—Excavating, removing Belgina gutters, constructing 3 in. penetration asphalt gutters, **WPA. $75,000.** C. Malstrom, Orange and N. 6 St., Newark, WPA engr.

N. J., Newark—Removing trolley tracks, repaving areas various streets, **WPA.** $50,000. C. Malstrom, Orange and N. 6 St., WPA engr.

N. J., Newark—Essex Co., Hall of Records Bldg., removing trolley rails, repaving track areas, **WPA. $60,000.** C. Malstrom, Orange and N. 6 St., WPA engr.

†New York—U. S. Eng., 960 Ellicott Square Bldg., Buffalo, grading, paving, appurtenant work, Jefferson Co., to Senior & Palmer, Inc., 50 Church St., New York, **$100,000-$500,000.**

N. Y., Falconer—Village Bd., Community Bldg., sidewalks, curbs, gutters, etc., own forces. **$25,000.** S. T. Benson, c/o owner, engr.

†Ohio—U. S. Eng., 925 New Federal Bldg., Pittsburgh, Pa., roads and aprons, trainer yard open drainage ditches, Portage Co., to G. B. Herring & Son, Mansfield. $50,000-**$100,000.**

O., Cleveland—Cleveland Metropolitan Housing Auth., E. J. Bohn, secy., roadwork and paving for Lake Shore Village Housing, to Cuyahoga Asphalt & Paving Co., 9501 Woodland Ave. Est. **$60,000.** F. A. Thomas, c/o owner, engr.

Pa., Pittsburgh—Comrs. Allegheny Co., river front imprv., paving, draining entire roadway, Duquesne Way, Contr. 14, to Sanetis Constr. Co., 507 Marlowe St., **$416,297.** Bids 8/4. CD 7/21—ENR 7/23.

†South Carolina—U. S. Eng., 33 Customhouse, Charleston, **roads,** Charleston Co., to R. B. Tyler Co., **1446 Levering** St., Louisville, **Ky., $50,000-$100,000.**

†South Carolina—U. S. Eng., 33 Customhouse, Charleston, roads, Charleston Co., to R. B. Tyler Co., 1446 Levering St., Louisville, Ky., **$100,000-$500,000.**

†South Carolina—U. S. Eng., Post Office, Savannah, Ga., paving, Anderson Co., to E. D. Sloan, Greenville, **$50,000-$100,000.**

†Texas—U. S. Eng., **Citizens** Bank Bldg., Denison, grading, **streets, roads,** to Gifford-Hill & Co., Tex. Bank **Bldg.,** Dallas, **$50,000-$100,000.** CD 5/1.

†Texas—U. S. Eng., Fort Sam Houston, addnl. concrete sidewalks, asphalt road paving area, grading, etc., Spec. 42-257, to L. P. Shull, **Builders Exch., San Antonio, $50,000-$100,000.**

†Texas—U. S. Eng., Albuquerque, N. M., road surfacing, Reeves Co., to Uvalde Constr. Co., Santa Fe Bldg., Dallas, **$100,000-$500,000.**

†Texas—U. S. Eng., Cotton Exchange Bldg., San Antonio, paving hardstanding areas, sidewalks, drives, Brown Co., to A. L. Rucy, Brownwood, under **$50,000.**

†Texas—U. S. Eng., Cotton Exch. Bldg., San Antonio, roads, sidewalks, Taylor Co., to W. G. Drummond Constr. Co., View, under **$50,000.**

†Texas—U. S. Eng., San Antonio, roads, walks, Taylor Co., to W. G. Drummond Constr. Co., Houston, under **$50,000.**

†Texas—U. S. Eng., San Antonio, road, Bell Co., to Southern States Constr. Co., San Jacinto Natl. Bank Bldg., Houston, under **$50,000.**

Washington—State Hy. Dpt., Olympia, imprv. 4.8 mi. Pacific Co., to T. W. Thomas, Portland, Ore., **$106,444.** Bids 8/25. Received no bids stockpiling Chelan and Kittitas Counties, Chelan and Okanogan Counties, Douglas and Grant Counties; reinforcing roadbed, constructing steel bridge Clallam Co. CD 8/10—ENR 8/13.

†Washington — U. S. Eng., Pittock Blk., Portland, Ore., roads and sidewalks, Clark Co., to Austin B. McCoy, C. P. Holmes, A. F. Johnson, E. E. Cohen, and Waale-Camplan Co., 2100 S.W. Jefferson St., Portland, Ore., under **$50,000.**

STREETS, etc. (Contracts Awarded, Cont'd.)

†**Wisconsin**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., grading, culvert work, to Roger Van Vechten, 9564 Beverly Pl., Wauwatosa.

†**Wisconsin**—U. S. Eng., 408 Federal Bldg., Milwaukee, roads, Milwaukee Co., to E. & C. Co., 3829 W. Weir St., Milwaukee, under $50,000.

EARTHWORK, WATERWAYS

PROPOSED WORK

Louisiana—Humble Oil & Refining Co., Canal Bldg., New Orleans, dredging to provide depth of 6 ft. below mean Gulf level over bottom width of 65 ft., in Schooner Bayou Cutoff, subdivision of Inland Waterway, Franklin to Mermentau River. Applied to War Dpt. for permit.

La., Berwick—Chester Guidroz, Berwick, dredging slip, depth 5 ft. below mean Gulf level, bottom width 35 ft. St. Mary Parish. Applied for War Dpt. permit.

La., Lafitte—Lafitte Oil Corp., Louisville, dredging slip about 5.8 mi. southeasterly from here, Jefferson Parish. Applied for War Dpt. permit.

†**Miss., Clarksdale**—U. S. Eng., Postoffice & Courthouse, Vicksburg, channel imprvs., enlargement, Coldwater, Tallahatchie and Yazoo Rivers, also levees, ditches.

Pa., Emporium—Boro Council, H. Ward Zimmer, pres., changing course West Creek through boro from north to south side of Penn. R. R. tracks. $20,000-$30,000.

S. D., Sioux Falls—C. M. Whitfield, city clk., dam across Sioux River. $25,000.

BIDS ASKED

Bids Asked September 9

Louisiana—Bd. Comrs. Fifth Louisiana Drainage Dist., Tallulah, cleaning 34.1 mi. drainage canal, Madison Parish.

New Jersey—Bd. Commerce & Navigation, State House, Trenton. Project 180, bulkhead along Atlantic Ocean shorefront, Long Branch, Monmouth Co.; Project 181, stone jetty, Stone Harbor, Cape May Co.; Project 182, repairing north jetties, Allenhurst Boro, Monmouth Co.; adv. ENR 9/3.

†**California—Bureau** Reclamation, Customhouse, Denver, Colo., regulating gates, Keswick Dam, Kennett Div., Central Valley project, Spec. 1045.

LOW BIDDERS

†**Missouri**—U. S. Eng., P. O. Box 97, Memphis, Tenn., levees on St. Francis River from Levee 7 south to Arkansas state line.

Wash., Tacoma—Bd. Contr. & Awards, City Hall, Aug. 19, caterpillar gate and hoist for La Grande tunnel, from Phillips & Davies, Inc., Kenton, O., $15,450. CD 8/14.

CONTRACTS AWARDED

†**Arkansas**—U. S. Eng., Postoffice and Courthouse, Vicksburg, Miss., moving 795,000 cu. yd. dirt on lever project, to Forcum-James Co., Dyersburg, Tenn. $100,000-$500,000.

★†**Arkansas**—U. S. Eng., P. O. Box 97, Memphis, Tenn., earthwork, Inv. 1092 43-3SF, to Atlas Constr. Co., Waxahachie, Tex. Est. under $1,000,000.

†**California**—U. S. Eng., 751 S. Figueroa St., Los Angeles, drainage ditch exten., Orange Co., to George L. Powell, 1550 Duane St., Los Angeles, under $50,000.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, pile driving, Alameda Co., to Ben C. Gerwick, 112 Market St., San Francisco, under $50,000.

Calif., Wilmington—Los Angeles City Dpt. Water & Power, 207 Bway., Los Angeles, retaining walls, fuel oil tank, pump house, Spec. 8719, to C. L. Peck, H. W. Hellman Bldg., Los Angeles, $61,457. Bids 8/19.

†**Illinois**—U. S. Eng., Clock Tower Bldg., Rock Island, repairing break in abutment wall, own forces, under $50,000.

★†**Missouri**—U. S. Eng., Courthouse & Customhouse, St. Louis, earthwork, to Cameron Joyce & Co., Keokuk, Ia. Est. under $1,000,000.

★†**Missouri**—U. S. Eng., P. O. Box 97, Memphis, Tenn., clearing, grading, paving, Inv. 1092-42-23F, to Wallace P. McGeorge, Pine Bluff, Ark. Est. under $1,000,000.

†**New Jersey**—U. S. Eng., 120 Wall St., New York, N. Y., bulkhead wall and drainage, Hudson Co., to Albert & Harrison, Inc., 271 W. 125 St., New York, N. Y., $50,000-$100,000.

†**New York**—U. S. Eng., 120 Wall St., New York, dredging, disposal of material, Suffolk Co., to Shultz Dredging Corp., 95 River St., Hoboken, N. J., under $50,000.

†**Ohio**—U. S. Eng., Postoffice & Courthouse, Cincinnati, relocation drainage ditch, Franklin Co., to Nag Sunday, Circleville, under $50,000.

†**Oklahoma**—U. S. Eng., Wright Bldg., Tulsa, excavation, Oklahoma Co., to Leo Sanders, Trades Natl. Bank Bldg., Oklahoma City, under $50,000.

†**Texas**—U. S. Eng., Fort Sam Houston, grading, drainage, etc., Spec. 42-264, to Ernest Loyd, Box 1077, Fort Worth, $100,000-$500,000. Bids 8/22. CD 8/14—ENR 8/20.

†**Texas**—U. S. Eng., San Antonio, drainage sys., Bexar Co., to F. M. Reising Constr. Co., Edinburg, $100,000-$500,000.

UNCLASSIFIED

PROPOSED WORK

†**Arizona**—TAXIWAYS, etc.—U. S. Eng., Albuquerque, N. M., architect-engineer services by W. C. Kruger, Santa Fe, taxiways, runways, apron, hardstandings, temporary frame bldgs., electric, water, sewage sys., Cochise Co.

†**Arizona**—UTILITIES—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., plans nearing completion by Harold W. Yost, archt. and engr., Heard Bldg., Phoenix, utilities. Under $50,000.

★†**Arkansas**—PIPELINE—Project Five Pipeline Corp., plans 150 mi. pipeline from near El Dorado to Helena, Federally financed.

California—IMPROVEMENTS—H. J. Kaiser Co., 1522 Latham Sq., Oakland, imprvs., bldg.

†**California**—IMPROVEMENTS—U. S. Eng., Wright Bldg., Sacramento, imprvs. $250,000.

Calif., Richmond—IMPROVEMENTS—H. J. Kaiser Co., 1522 Latham Sq. Bldg., Oakland, imprvs, payroll and personnel bldg. at Shipyard 3.

★†**Florida** — PIPELINE — Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C. removal 195 mi. 8 in. steel pipeline between Houston and Longview, Tex., and relaying same between Carrabelle and Jalleshere, terminals, etc. $2,900,000. Industrial Company will operate.

★**Idaho, Boise** — AIRPORT — Auxiliary airport, $500,000. Federal funds will be sought.

Ia., Cherokee—AIRPORT—Approved $60,000 bond issue, airport. About $100,000.

Louisiana—GAS PIPE LINE—United Gas Pipe Line Co., 1515 Fairfield Ave., Shreveport, 12 in. gas pipe line, La Fourche Parish; two 10 in. gas pipe lines, Luling. Applied for War Dpt. permit.

†**Maryland**—IMPROVEMENTS—U. S. Eng., 6 and Walnut Sts., Phila., Pa., imprvs., basic and contact lighting sys.

Massachusetts — IMPROVEMENTS — Bethlehem-Hingham Shipyards, Inc., E. Howard St., Quincy, soon lets contract imprvs., bldgs.

Miss., Natchez—AIRPORT—Bond election Sept. 4, airport, $175,000.

Missouri — RURAL ELECTRIC LINES — M. & A. Power Co-operative, Inc., Hayti. J. M. Dalton, atty., Kennett, rural electric lines to serve vicinity Hayti. Over $25,000.

†**New Jersey**—SEEDING—U. S. Eng., Pen-Mutual Bldg., Phila., Pa., seeding. Project withdrawn. CD 8/26.

†**New Mexico**—RAILROADS—U. S. Eng., Albuquerque, architect-engineer services by Wilson & Co., Albuquerque, railroads, Curry Co.

†**New Mexico**—RAILROADS—U. S. Eng., Albuquerque, architect-engineer services by Wilson & Co., Albuquerque, railroads Ward Co.

Okla., Guymon—AIRPORT—G. R. Gear, mayor, airport.

Oregon—IMPROVEMENTS—Larson Yards, Inc., Astoria, imprvs, bldg. $175,000.

R. I., Westerly—HANGARS—State Div. State Airports, State House, Providence, preliminary plans airplane hangars.

†**Tennessee**—SITE CLEARING—U. S. Eng., P. O. Box 97, Memphis, site clearing.

★**Texas** and **Louisiana**—OIL PIPELINES—Humble Oil & Refining Co. & Associates, c/o H. C. Wiess, Humble Bldg., Houston, 250 mi. oil pipeline from Corpus Christi to Houston and Beaumont areas, Texas; 260 mi. 8 and 10 in. oil pipe line from Baytown, Tex., to Baton Rouge, La.

†**Texas** — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., Citizens Bank Bldg., Denison, outdoor overhead electrical distr. sys. for roads and street lighting. Over $25,000. Freese & Nichols, Capps Bldg., Fort Worth, archts. and engrs.

★†**Texas** — IMPROVEMENTS — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., architect-engineer services by M. Moore & J. E. Ward, Mag. Pet. Bldg., Houston, improvements. $10,000,000.

†**Tex., Dallas** — FLYING FIELD — Culver Aircraft Sales, Love Field, Dallas, 225 acre flying field, hangars, shops, barracks, sewers, water lines, facilities, grading, drainage, site development, at Pleasant Grove.

Tex., Dallas—GAS DISTRIBUTION SYSTEM—Culver Aircraft Sales Co., Love Field, natural gas distr. line, facilities, for flying field, Pleasant Grove.

†**Washington**—ELECTRICAL EQUIPMENT—U. S. Eng., Central Bldg., Seattle, architect-engineer services by M. O. Sylhaasen, Bebb & Jones, and Lincoln Bouillon, Hoge Bldg., Seattle, redesigning electrical equipment, Spokane Co.

†**Washington** — LUBRICATING OIL SYSTEM — U. S. Eng., Central Bldg., Seattle, architect-engineer services by G. W. Stoddard, Griffin & Lowe & Associates, Lloyd Bldg., Seattle, lubricating oil system.

Wis., Greenfield—SPUR LINE—Milwaukee Electric Ry. & Transport Co., 340 St. Paul Ave., Milwaukee, 6/10 mi. spur line. $37,000.

★**Man., Winnipeg**—OBSERVERS SCHOOL—Secretary Dpt. Munitions & Supply, Ottawa, Ont., bids soon air observers school, 4 double hangars, 265X320 ft., 20 new bldgs., for Dpt Natl. Defense for Air, Ottawa, Ont. $1,000,000.

BIDS ASKED

Bids Asked September 8

B. C., Esquimalt—DRY DOCK—Secretary Dpt. P. Wks., Ottawa, Ont., dry dock, for Dominion Govt., Ottawa, Ont. C. D. Sutherland, archt. and K. M. Cameron, engr., both Dpt. P. Wks., Ottawa, Ont.

Ont., Jarvis—RUNWAYS, etc.—Secretary Dpt. Transport, Ottawa, hardsurface runways and taxistrips at Bombing and Gunnery School. $150,000.

Bids Asked September 9

†**West Virginia** — PLANTING — Pub. Bldgs Admin., North Interior Bldg., Wash., D. C., planting at defense housing.

Bids Asked September 12

†**Maine** — IMPROVEMENTS — Dpt. Commerce, Civil Aeronautics Admin., Box 636 N. Y. Airport Station, La Guardia Field, imprvs. Plans deposit $25.

Bids Asked September 17

†**Montana** — FLIGHT STRIP — State Hy. Comm., Helena, flight strip, $150,000. Federally financed. H. W. Holmes, Helena, state hy. engrs.

Bids Asked September 19

†**Arkansas**—FUELING SYSTEM—U. S. Eng., Gay Bldg., Little Rock, A. C. fueling sys., steel tanks, concrete pits, pump unit, pipe lines, etc. Plans deposit $25.

Bids Asked

Louisiana—OIL WELL—Hunt Oil Co., Santa Fe Bldg., Dallas, Tex., drilling, casing, developing 6,000 ft. oil well, Bossier Parish. $100,000.

†**Texas**—GASOLINE FUELLING SYSTEM—U. S. Eng., Wright Bldg., Tulsa, Okla., a.c gasoline fueling and oil storage sys., steel tanks, concrete pits, pipe lines. Plans deposit $30. $75,000.

†**Texas**—GASOLINE SYSTEM, etc.—U. S. Eng., Federal Bldg., Galveston, A. C. gasoline, oil and fueling sys., steel tanks, piping, concrete pits, etc. Former bids rejected. Plans deposit $25. CD 8/17—ENR 8/20.

†**Texas**—GASOLINE SYSTEM, etc.—U. S. Eng., Federal Bldg., Galveston, A.C. gasoline, oil and fueling sys., steel tanks, piping, concrete pits, etc. Former bids rejected. Plans deposit $25. CD 8/17—ENR 8/20.

†**Texas**—GASOLINE FUELING SYSTEM—U. S. Eng., Fort Sam Houston, A. C. gasoline fueling sys., Spec. 42-343. Plans deposit $25.

Tex., Tyler—OIL WELL—Thompson Bros., Mineral Co., Tyler, drilling, casing, developing 4,500 ft. Wildcat Oil Well. $75,000.

†**Pacific Northwest**—GAS FACILITIES, etc.—U. S. Eng., Textile Tower, Seattle, Wash., gas facilities, Inv. 123; gas storage, Inv. 128; depot supply unit, Inv. 129.

LOW BIDDERS

†**California**—IMPROVEMENTS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Aug. 27, imprvs., No. 202, from Osborn Co., Sierra Madre Villa Ave., Pasadena, over $100,000.

California — IMPROVEMENTS — Industrial Company, imprvs., bldg., from E. S. McKittrick Co., Sharon Bldg., San Francisco. CD 8/27—ENR 9/3.

Ill., Chicago—LIGHTING FIXTURES, etc.—City, at office P. Harrington, comr. Subways & Superhighways, 20 N. Wacker Dr., Aug. 27, installing lighting fixtures, illuminated signs, Order N S-3, of Contr. E-5, from Divane Bros., 3826 W. Van Buren St., $88,137. CD 8/4—ENR 8/7.

†**Nevada**—PRISON STOCKADE AREA—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., Aug. 22, prison stockade area, Inv. 130, from C. B. Bagnall, Box 176, Palos Verdes Estates, Calif., under $50,000.

†**Texas** — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., Fort Sam Houston, Aug. 22, electrical distr. sys., Spec. 42-308, from Eugene Ashe Electric Co., 415 Jones St., Fort Worth.

†**Texas** — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., Fort Sam Houston, electrical distr. sys., Spec. 42-322, T2-9, T3-15, from Eugene Ashe Electric Co., 415 Jones St., Fort Worth. Bids 8/28.

UNCLASSIFIED (Low Bidders, Cont'd.)

†**Texas**—IMPROVEMENTS—U. S. Eng., Federal Bldg., Galveston, imprvs., from Austin Road Co., 1813 Clarence St., Dallas, Tex. Bids 8/26. CD 8/19.

†**Texas**—IMPROVEMENTS—U. S. Eng., Citizens Bank Bldg., Denison, Aug. 17, imprvs. grading, drainage, from L. P. Reed, Meredian. **$50,000-$100,000.** CD 8/10—ENR 8/13.

CONTRACTS AWARDED

†**Arizona**—CONSTRUCTION—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., construction, Pinal Co., to Robert L. Brosh, Hollywood, Calif., under **$50,000.**

†**Arizona** — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., electrical distr. sys., Yuma Co., to General Constr. Co., and J. Walter Johnson, 5205 Hollywood Blvd., Los Angeles, Calif., **$50,000-$100,000.**

†**Arizona**—FENCING—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., fencing, Yuma Co., to The American Steel & Wire Co. of New Jersey, Los Angeles, under **$50,000.**

★†**Arizona**—IMPROVEMENTS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., imprvs., Job No. A 2-1, to Arizona Constructors, Inc., 812 Luhrs Bldg., Phoenix, Ariz., less than **$5,000,000.** Awarded 8/26.

†**Arizona**—LINE EXTENSION, etc.—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., line exten., power, Mohave Co., to Citizens Utility Co., Kingman, under **$50,000.**

†**Arizona**—LIGHTING SYSTEM—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., night lighting sys., Maricopa Co., to Thamson Electric Co., 424 E. Jefferson St., Phoenix, under **$50,000.**

†**Arizona**—NIGHT LIGHTING—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., night lighting, Pima Co., to Newberry Electric Corp., 1038 Venice Blvd., Los Angeles, Calif., **$50,000-$100,000.**

†**Arizona**—PROTECTIVE ALARM SYSTEMS—U. S. Eng., Albuquerque, N. M., protective alarm sys., Cocoino Co., to Dowzer Constr. Co., Hutchinson, Kan., under $50,000.

†**Arizona**—RAILROAD SPUR—U. S. Eng., 751 S. Figueroa St., Los Angeles, railroad spur, Yuma Co., to H. B. Nicholson, 1151 S. Bway., Los Angeles, **$50,000-$100,000.**

†**Arizona**—RAILROAD SPUR LINE—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., 12,000 ft. railroad spur line, to Brice Covington, Kingman, under **$100,000.**

†**Arizona**—RUNWAYS, etc.—U. S. Eng., Gay Bldg., Little Rock, runways, taxiways, apron, hardstandings, Jackson Co., to Crittenden Constr. Co., West Memphis. **$50,000-$100,000.**

†**Arizona**—TAXIWAYS, etc.—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., taxiways, runways, apron, hardstanding area, ranges, Maricopa Co., to Arthur Pinner, Jr., 116 W. 34 St., Los Angeles, **$100,000-$500,000.**

†**Arizona**—TAXIWAYS, etc.—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., taxiways, runways, apron, hardstanding area, target ranges, Pima Co., to Tiffany Constr. Co., W. Broadway Rd., Phoenix. **$100,000-$500,000.**

†**Arizona**—TAXIWAYS, etc.—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., taxiways, runways, apron, hardstandings, target range, Pima Co., to J. B. Morrisson and W. S. Graves, Phoenix. **$100,000-$500,000.**

†**Arkansas**—COMPASS SWINGING BASE—U. S. Eng., Gay Bldg., Little Rock, compass swinging base, Arkansas Co., to Gregory-Hogan, 115 N. Spring St., Little Rock, under **$50,000.**

†**Arkansas**—ELECTRICAL DISTRIBUTION SYSTEM, etc.—U. S. Eng., P. O. Box 97, Memphis, Tenn., electrical distr. sys., primary switch station, Lawrence Co., to L. E. Meyers Co., 53 West Jackson Blvd., Chicago, Ill., **$50,000-$100,000.**

†**Arkansas**—ELECTRICAL DISTRIBUTION, etc. — U. S. Eng., Postoffice & Courthouse, Vicksburg, Miss., electrical distr. street lighting and fence lighting sys., Drew Co., to Delta Constr. Co., Clarksdale, Miss., under **$50,000.**

†**Arkansas** — ELECTRIC POWER LINES — U. S. Eng., Gay Bldg., Little Rock, reconstructing electric power lines, Arkansas and Prairie Counties, to Arkansas Power & Light Co., Simmons Natl. Bldg., Pine Bluff, under **$50,000.**

†**Arkansas** — HYDRAULIC FUELING SYSTEM—U. S. Eng., Gay Bldg., Little Rock, hydraulic fueling sys., Pulaski Co., to Aqua Systems, Inc., 385 Gerard Ave., New York, N. Y., under **$50,000.**

†**Arkansas**—RAILROAD—U. S. Eng., P. O. Box 97, Memphis, Tenn., railroad, Lawrence Co., to St. Louis-San Francisco R.R. Co., 609 Olive St., St. Louis, Mo., under **$50,000.**

†**Arkansas**—RAILROAD TRACK—U. S. Eng., Gay Bldg., Little Rock, railroad spur, Pulaski Co., to Guy A. Thompson, trustee, Mo. Pacific Railroad Co., Debtor, 13 St., Olive to Pine Sts., St. Louis, Mo., under **$50,000.**

†**California**—COMPASS SWINGING BASE—U. S. Eng., 751 S. Figueroa St., Los Angeles, compass swinging base, San Bernardino Co., to Earl D. Kalt, Los Angeles, under **$50,000.**

†**California**—CONSTRUCTION—U. S. Eng., 751 S. Figueroa St., Los Angeles, construction, Los Angeles Co., to Anthony B. Heinzbergen, Los Angeles, under **$50,000.**

†**California**—CONSTRUCTION—U. S. Eng., Wright Bldg., Sacramento, construction, Fresno Co., to Sheldon Oil Co., Suisun, under **$50,000.**

†**California**—CONSTRUCTION—U. S. Eng., Wright Bldg., Sacramento, construction, Sacramento Co., to R. W. Reade & Co., 2488 Teleg St., Berkeley, under **$50,000.**

†**California**—FIRE ALARM SYSTEM, etc.—U. S. Eng., Wright Bldg., Sacramento, fire and air raid alarm sys., San Joaquin Co., to E. L. French, 1926 O St., Sacramento, under **$50,000.**

†**California** — FIRE CONTROL SYSTEM — U. S. Eng., 751 S. Figueroa St., Los Angeles, fire control detection sys., San Bernardino Co., to Western Electronic Sales Corp., 4031 Goodwin Ave., Los Angeles, and to Electronic Radio Alarm Corp., Los Angeles, ea. contract under **$50,000.**

†**California** — GASOLINE SYSTEM, etc. — U. S. Eng., Wright Bldg., Sacramento, gasoline unloading, oil storage and dispensing sys., Sacramento Co., to Markwart Co., Forum Bldg., Sacramento, under **$50,000.**

†**California** — GASOLINE SYSTEM — U. S. Eng., 751 S. Figueroa St., Los Angeles, A. F. gasoline fueling sys. No. 196, to Peter Gadd, 2173 Colorado Blvd., Los Angeles, under **$500,000.** Awarded 8/26.

†**California**—GREASE RACKS—U. S. Eng., 751 S. Figueroa St., Los Angeles, wooden grease racks, Kern Co., to George Goedhart, 188 Woodlyn Rd., Pasadena, under **$50,000.**

California — IMPROVEMENTS — California Steel Products Co., Barrett and A Sts., Richmond, imprvs., bldgs., Owner builds.

★†**California** — IMPROVEMENTS — U. S. Eng., 751 S. Figueroa St., Los Angeles, No. 182 to Oberg Bros., Oscar Oberg, 3914 Slauson Ave., Los Angeles, and Nathan A. Moore, 11825 N. Niagara St., Burbank, under **$1,000,000.** Bids 8/19, awarded 8/24. CD 8/26, under LB.

†**California** — PILE DRIVING, etc. — U. S. Eng., 74 New Montgomery St., San Francisco, pile driving, classification sheds, to Ben C. Gerwick, Inc., 112 Market St., San Francisco. Awarded 8/26.

†**California** — REMOVING RAILS, etc. — U. S. Eng., Wright Bldg., Sacramento, removing rail, switches and track accessories, Shasta Co., to A. D. Schader, 144 Spear St., San Francisco. **$50,000-$100,000.**

†**California** — SPUR TRACK — U. S. Eng., Wright Bldg., Sacramento, spur track, Fresno Co., to J. E. Haddock, Ltd., 3 and Huntington Dr., Pasadena, under **$50,000.**

†**California** — SPUR TRACK, etc. — U. S. Eng., Wright Bldg., Sacramento, spur track and relocation gasoline unloading facilities, Kern Co., to J. E. Haddock, Ltd., 3 and Huntington Dr., Pasadena, under **$50,000.**

†**California** — SPUR TRACK — U. S. Eng., Wright Bldg., Sacramento, spur track, Merced Co., to Union Paving Co., 310 California St., San Francisco, under **$50,000.**

†**California**—WALL—U. S. Eng., 751 S. Figueroa St., Los Angeles, concrete wall, to Griffith Co., 592 Los Angeles Railway Bldg., Los Angeles, under **$100,000.** Awarded 8/25.

†**California**—ELECTRICAL WIRING SYSTEM — U. S. Eng., 751 S. Figueroa St., Los Angeles, electrical wiring sys., Los Angeles Co., to L. A. Duncan, 2891 W. Pico Blvd., Los Angeles, under **$50,000.**

★†**Colorado**—PLUMBING SYSTEM, etc.—U. S. Eng., c/o Postmaster, Denver, plumbing and heating sys., Eagle Co., to Douglas Jardine, Pando, **$1,000,000-$5,000,000.**

†**Connecticut** — IMPROVEMENTS — U. S. Eng., 819 Industrial Bldg., Providence, R. I., imprvs., electrical sys., conduits, electric wiring, to Brady Electric Co., Inc., 480 2 St., Fall River, Mass. Bids 8/15.

†**Delaware**—CONSTRUCTION—U. S. Eng., Pen-Mutual Bldg., Phila., Pa., construction, New Castle Co., to Pruss Bradly Co., 1920 Cherry St., Phila., Pa., under **$50,000.**

†**Florida**—AIR CONDITIONING SYSTEM—U. S. Eng., Courthouse and Postoffice, Jacksonville, air conditioning sys., Orange Co., to H. A. Daugherty & Co., Orlando, under **$50,000.**

†**Florida**—APRONS, etc.—U. S. Eng., Courthouse and Postoffice, Jacksonville, clearing, grubbing, grading, paving aprons, taxiways, hardstandins, Pinellas Co., to Marion Contg. Co., Ocala, **$100,000-$500,000.**

†**Florida**—GASOLINE STORAGE SYSTEM, etc.—U. S. Eng., Courthouse and Customhouse, Mobile, Ala., gasoline, oil storage and fire protection sys., Franklyn Co., to Gulf City Constr. Co., Mobile, **$50,000-$100,000.**

†**Georgia**—ELECTRIC SYSTEM, etc.—U. S. Eng., Postoffice Bldg., Savannah, electric, water and sewerage sys., Houston Co., to J. B. McCrary Co., Inc., 22 Marietta St. Bldg., Atlanta, **$100,000-$500,000.**

†**Idaho**—FENCING—U. S. Eng., Portland, Ore., fencing, to Vernon Hersberger, Pacatello, Idaho, under **$50,000.**

†**Idaho**—SPRINKLER SYSTEM—U. S. Eng., Pittock Blk., Portland, Ore., sprinkler sys., Bannock Co., to Intermountain [illegible] 145 S. 3 Ave., Pocatello, under [illegible]

†**Idaho**—SPRINKLER SYSTEM [illegible] Pittock Blk., Portland, Ore., sprinkler sys., Jerome Co., to [illegible] matic Sprinkler Co., Portland, **$50,000.**

†**Illinois** — FLOODLIGHTING [illegible] U. S. Eng., Clock Tower Bldg., floodlighting sys., Carroll Co., Electric Co., Minneapolis, Minn. [illegible] $50,000

†**Indiana**—AIRPORT—U. S. E[illegible] Guardian Bldg., Detroit, Mich., ing, excavating, seeding, drainage way, Allen Co., to J. C. O'Co[illegible] Inc., 2104 Miner St., John Deh[illegible] Clark St., and Moellering Constr[illegible] ray St., Fort Wayne. **$100,000-$500,000.**

†**Indiana**—OIL STORAGE, etc.—U. S. Eng., Louisville, Ky., oil storage and [illegible] sys., Jackson Co., to Joseph Ha[illegible] lyn, N. Y., under **$50,000.**

†**Kansas**—GASOLINE SYSTEM—U. S. Eng., 612 Federal Bldg., Kansas City, Mo., gasoline fueling sys., Geary Co., to Neumeier Equipment Co., 723 S. Sarah St., St. Louis, Mo., under **$50,000.**

★†**Kansas** — IMPROVEMENTS—U. S. Eng., Albuquerque, N. M., imprvs., to Lee & Clark Constr. Co. and San Orr Constr. Co., McPherson, and to Tulsa Rig, Reel & Mfg. Co. and American Steel Dierrick Co., Philtower Bldg., Tulsa, Okla., over $5,000,000 (**Correction**—last contractor's address.) CD 8/25, under CA.

†**Kentucky**—MAGAZINE, etc.—U. S. Eng., Postoffice & Courthouse, Cincinnati, magazine, fence and gates, water gates and [illegible] Madison Co., to American Steel & Wire Co., Cyclone Fence Div., 1287 Marquette St., Cleveland, O., **$50,000-$100,000.**

†**Louisiana**—ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., Postoffice & Courthouse, Vicksburg, Miss., electrical distr. sys., Lincoln Parish, to Delta Constr. Co., Clarksdale, Miss., **$50,000-$100,000.**

†**Louisiana**—IMPROVEMENTS—U. S. Eng., foot Prytania St., New Orleans, imprvs., 2 water wells, Inv. 42-64, to Coastal Water Well Co., Welch. Awarded 8/21.

†**Louisiana**—NIGHT LIGHTING SYSTEM—U. S. Eng., foot of Prytania St., New Orleans, night lighting sys., Rapides Parish, to Cahe Electric Co., 708 Milam St., Shreveport, under **$50,000.**

†**Maryland**—STORAGE TANK—U. S. Eng., Standard Oil Bldg., Baltimore, wood storage tank, with steel tower, Harford Co., to Pittsburgh-Des Moines Steel Co., Neville Island, Pittsburgh, Pa., under **$50,000.**

★†**Massachusetts**—IMPROVEMENTS—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., imprvs., to Lane Constr. Co., 37 Colony St., Meriden, Conn., under $1,000,000. Bids 8/21. CD 8/17.

Massachusetts — IMPROVEMENTS — Industrial Company, imprvs., bldg., to John F. Griffin Co., 238 Main St., Cambridge, $155,948, bids 8/17; addnl. special piping, to V. J. Kenneally Co., 104 Hanover St., Boston, $42,848. CD 8/13.

†**Massachusetts**—RUNWAYS, etc.—U. S. Eng., Park Square Bldg., Boston, runways, taxiways, apron, hardstanding area, Middlesex Co., to David Nassif Co., 120 Providence St., Boston. **$100,000-$500,000.**

†**Massachusetts**—TOWER—U. S. Eng., Park Square Bldg., Boston, wood tower, Inv. 175-42 Neg 42, to J. Hamre & Son, 55 Buckingham Rd., Quincy. Est. under **$50,000.**

★†**Michigan**—STEAM DISTRIBUTION SYSTEM—U. S. Eng., 700 Union Guardian Bldg., Detroit, steam distr. sys., sanitary sewers, water distr. sys, fire line watermains, Mccomb Co., to Drake Avery Co., 147 W. Woodbridge St., Detroit, under **$1,000,000.**

Minn., Northfield—HANGAR—Carleton College, D. J. Cowling, pres., Northfield, general contract brick, wood hangar for college airfield, to J. A. Heiner, 5110 38 Ave. S., Minneapolis, over **$25,000.**

†**Mississippi**—ELECTRICAL SYSTEM—U. S. Eng., U. S. Post Office & Court House, Vicksburg, electrical Sys., to Stuart C. Irby Co., 815 S. State St., Jackson, Miss., and Bell & Watkins, Lexington, Ky., less than **$30,000.** CD 5/6.

★†**Mississippi** — IMPROVEMENTS — Industrial Company, imprvs., bldg., to Brice Bldg. Co., 215 S. 18 St., Birmingham, Ala. Est. under **$1,000,000.** Federally financed. J. B. Smith, Steinver Bldg., Birmingham, Ala., archt.

†**Missouri**—FENCING—U. S. Eng., P. O. 97, Memphis, Tenn., fencing, Dunklin Co., to Chain-Link Fence Corp., 1629 W. 31 St., Chicago, Ill., under **$50,000.**

Neb., Norfolk — AIRPORT — City, second phase airport imprv. project. **WPA. $173,000.**

†**Nevada** — FENCING — U. S. Eng., Los Angeles, Calif., fencing, Clark Co., to Los Angeles Fencing Co., 3252 Wendugo Rd., Los Angeles, Calif., under **$50,000.**

†**Nevada** — NIGHT LIGHTING SYSTEM — U. S. Eng., Wright Bldg., Sacramento, Calif., night lighting sys., Churchill Co., to Reliable Elevator Works, 619 California St., Sacramento, Calif., under **$50,000.**

★†**New Hampshire**—IMPROVEMENTS—U. S. Eng., 819 Industrial Trust Bldg., Provi-

UNCLASSIFIED (Contracts Awarded, Cont'd.)

dence, R. I., imprvs., to Carlo Bianchi & Co., Inc., Union Ave., Framingham, Mass., $500,000-$1,000,000. CD 7/23—ENR 7/30.

★**New Jersey** — IMPROVEMENTS — Industrial Company, imprvs., excavating, grading, paving, to Daniel F. MacNamee & Co., 25 North Ave., New Rochelle, N. Y., $150,000. Navy funds allotted.

New Jersey—IMPROVEMENTS—Industrial Company, imprvs., to Gumina Bldg. & Construction Co., 14 Georgia St., New Brunswick, N. J., $75,000. Federally financed.

New Jersey — IMPROVEMENTS — Second Corps Area, Governors Island, N. Y., imprvs., WPA. $154,801. CD 8/27—ENR 9/3.

New Jersey—LANDSCAPING, etc.—U. S. A. Ordnance Dpt., Pedricktown, landscaping, excavating, grading, drainage, etc. WPA, $55,307. David Haining, 930 Atlantic Ave., WPA engr.

New Jersey — LANDSCAPING, etc. — War Dpt., 20 St. and Constitution Ave, N.W., Wash., D. C., landscaping, excavating, grading roads, etc. WPA, $175,000. J. H. Weitzen, Chestnut and Hamilton Aves., Trenton, WPA engr.

New Jersey — PARK IMPROVEMENTS — Palisade Interstate Park Comn., 80 Center St., New York, N. Y., imprv. Palisade Park, recreation areas, roads, landscaping, etc. WPA, $52,221. C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

New Jersey—PLATFORMS—U. S. Eng., 120 Wall St., New York, N. Y., timber platforms, Hudson Co., to Hugh Montague & Son Co., Inc., 810 Bergen Ave., Jersey City, under $50,000.

N. J., Jersey City—PIER BUILDINGS—Erie R. R., J. W. Smith, ch. engr., Midland Bldg., Cleveland, O., altering, addns. Pier 1, and pump house, paint shop, carpentry shop, boiler house, office bldg., to James Mitchell, Inc., 575 West Side Ave., $95,000.

N. J., Newark—PARK IMPROVEMENTS—Essex Co., imprv. parks, rubble and masonry walls, paving grading, etc., WPA, $58,274. C. Malstrom, Orange and N. 6 Sts., WPA engr.

N. J., Perth Amboy—PARK IMPROVEMENTS—Imprv. parks, recreational grounds, bathing beach, parking area, landscaping, WPA, $60,500. J. H. Weitzen, Chestnut and Hamilton Ave., Trenton, WPA engr.

New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., water lines, facilities; sanitary sewer collecting lines, Spec. EP-506-U, to Hayner & Burn, Las Cruces, $50,000-$100,000.

New Mexico—RAILROAD SPUR—U. S. Eng., Albuquerque, railroad spur addn., Bernalillo Co., to F. D. Shufflebarger, Albuquerque, under $50,000.

New Mexico — SHELTERS — U. S. Eng., Albuquerque, concrete shelters, to Martin & Cowart, Albuquerque, under $50,000.

N. M., Raton—AIRPORT—R. Gaskin, city clk., completion municipal airport, WPA, $55,335.

N. M., Santa Fe—DAM—New Mexico Power Co., 201 Don Gaspar Ave., earth filled, concrete dam, 4 mi. east of here, to Sanderson & Porter, 52 William St., New York, N. Y. Est. $300,000.

New York—GASOLINE SYSTEM—U. S. Eng., Chimes Bldg., Syracuse, gasoline pumping sys., Onondaga Co., to Walters Constr. Co. Inc., 37-49-58 St., Woodside, $50,000-$100,000.

New York—LIGHTING SYSTEM—U. S. Eng., 960 Ellicott Square, Buffalo, lighting sys., Franklin Co., to Edw. Zwicker Corp., 415 Lexington Ave., New York, under $50,000.

New York—SPRINKLER SYSTEM—U. S. Eng., 960 Ellicott Square Bldg., Buffalo, sprinkler sys., Erie Co., to Rockwood Sprinkler Co., 38 Harlow St., Worcester, Mass., $50,000-$100,000.

North Carolina—AIR CONDITIONING SYSTEM—U. S. Eng., 308 Customhouse, Wilmington, N. C., air conditioning sys., Cumberland Co., to Godwin-Pollock Air Conditioning Corp., Fayetteville, under $50,000.

North Carolina—RAILROAD DRAINAGE—U. S. Eng., 33 Customhouse, Charleston, S. C., railroad drainage, Mecklenburg Co., to Gilbert Engineering Co., Inc., Statesville, under $50,000.

North Dakota — IMPROVEMENTS — Civil Aeronautics Admin., 222 W. No. Bank St., Chicago, Ill., imprvs., Inv. 42-3-172, to Northwestern Eng. Co., 1311 St. Joe St., Rapid City, S. D. $187,954. Bids 7/27. CD 7/22—ENR 7/9.

Ohio—ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., 925 New Federal Bldg., Pittsburgh, Pa., electrical distr. sys., Portage Co., to Gangl Engineering Co., Akron, under $50,000.

★**Ohio**—PLUMBING, etc.—U. S. Eng., 700 Union Guardian Bldg., Detroit, Mich., plumbing, heating, ventilating of production bldg., Allen Co., to W. B. Van Sickle Co., 1823 St. Clair Ave., Cleveland, O. less than $1,000,000.

★**Ohio**—WIND TUNNEL—U. S. Eng., Wright Field, Dayton, wind tunnel, Montgomery Co., to R. C. Mahon Co., 8650 Mt. Elliot St., Detroit, Mich., $500,000-$1,000,000.

Oklahoma—HEATING, etc.—U. S. Eng., Wright Bldg., Tulsa, heating, ventilating, filtering, Oklahoma Co., to The R. C. Mahon Co., 8650 Mt. Eliot St., Detroit, Mich., $50,000-$100,000.

Oklahoma—SPRINKLER SYSTEM—U. S. Eng., Citizens Bank Bldg., Denison, Tex., automatic sprinkler sys., Atoka Co., to Rockwood Sprinkler Co., Audubon Bldg., New Orleans, La., under $50,000.

Oregon — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., Pittock Blk., Portland, electrical distr. sys., Jackson Co., to Max J. Kuney Co., N.-120 Ralph St., Spokane, Wash., under $50,000.

Oregon—GASOLINE STORAGE SYSTEM—U. S. Eng., Pittock Blk., Portland, altering gasoline storage sys., Multnomah Co., to C. M. Corkum, 4857 S.E. Sherman St., Portland, under $50,000.

Oregon — PLUMBING and HEATING FACILITIES—U. S. Eng., Pittock Blk., Portland, plumbing and heating facilities, Umatilla Co., to Urban Plumbing & Heating Co., 1215 S.W. 5 St., Portland, under $50,000.

Oregon—PROTECTIVE ALARM SYSTEM—U. S. Eng., Pittock Blk., Portland, protective alarm sys., Umatilla Co., to American District Telegraph Co., 155 6 Ave., New York, N. Y. $50,000-$100,000.

Pennsylvania — ELECTRICAL FACILITIES—U. S. Eng., Penn-Mutual Bldg., Phila., exten. electrical facilities, Phila. Co., to Philadelphia Electric Co., 1000 Chestnut St., Phila., under $50,000.

Pennsylvania—ROOFING—U. S. Eng., 926 New Federal Bldg., Pittsburgh, roofing and sheet metal work, Crawford Co., to Jos. A. Sanders & Sons, Inc., 107 Lathrop St., Buffalo, N. Y., under $50,000.

Rhode Island—IMPROVEMENTS—U. S. Eng., 819 Industrial Trust Bldg., Providence, imprvs., electric distr. sys., etc., to Brady Electric Co., Inc., 480 2 St., Fall River, Mass.

★**South Carolina**—APRON, etc.—U. S. Eng., Postoffice Bldg., Savannah, Ga., paving apron, taxiways, runways, hardstandings, Barnwell Co., to C. M. Lyle Constr. Co., Gainesville, Ga., $500,000-$1,000,000.

South Carolina—GASOLINE TANK, etc.—U. S. Eng., Custom House, Charleston, gasoline tank, pipes, fittings, Greenville Co., to E. C. Bridges, Heath Springs, $50,000-$100,000.

South Carolina—GRASSING, etc.—U. S. Eng., 33 Customhouse, grassing, planting, sodding, Charleston Co., to F. J. Aichele, Summerville Hy., Charleston, under $50,000.

South Carolina—HEATING, etc.—U. S. Eng., 33 Customhouse, Charleston, heating, insulating, and sealing trainer bldgs., Sumter Co., to Avery Lumber Co., Sumter, under $50,000.

South Carolina—SWITCHING STATION, etc.—U. S. Eng., 33 Customhouse, Charleston, switching station, electrical distr. lines, Richland Co., to Seastrunk Electric Co., 1731 Harden St., Columbia, under $50,000.

South Dakota—ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., 1709 Jackson St., Omaha, Neb., electrical distr. sys., Davison Co., to Clifton Engineering Co., Three Rivers, Mich., under $50,000.

★**South Dakota**—IMPROVEMENTS—U. S. Eng., 1709 Jackson St., Omaha, Neb., imprvs., to Northwestern Eng. Co., 1311 St. Joe St., Rapid City, $1,000,000-$5,000,000.

South Dakota—SEEDING—U. S. Eng., 1709 Jackson St., Omaha, Neb., seeding, Minnehaha Co., to C. E. Weir, 930 S. Phillips St., Sioux Falls, under $50,000.

South Dakota—SEEDING, etc.—U. S. Eng., Administration Bldg., Fort Peck, Mont., seeding, fertilization, Pennington Co., to J. R. McMahon, d. b. a. McMahon Co., Rapid City, under $50,000.

★**South Dakota**—TAXIWAYS, etc.—U. S. Eng., 1709 Jackson St., Omaha, Neb., taxiways, apron and roadway surfacing, Codington Co., to F. M. Hargrave, 2424 Bever St. S.E., Cedar Rapids, Ia., $100,000-$500,000***apron and runways, to Hallett Constr. Co. and Nelson, Mullen & Webster, Inc., Sioux Falls, $500,000-$1,000,000***sewers, water, and electrical distr. sys., gasoline sys., fence, temporary frame bldgs., to Lenci, Lenci & Englund, Inc., and H. L. Stavin Co., Sioux Falls, $100,000-$500,000.

Tennessee—FENCE—U. S. Eng., P. O. Box 97, Memphis, fencing, Shelby Co., to N. J. Cyclone Fence Div., Amer. Steel & Wire Co., Waukegan, Ill., under $50,000.

Tennessee—SPRINKLER SYSTEM—U. S. Eng., 306 Courthouse, Nashville, sprinkler sys., to Nile E. Yearwood Co., 1701 Church St., Nashville. Est. $100,000-$500,000.

★**Texas**—AIR FORCE INSTALLATION—U. S. Eng., Albuquerque, N. M., air force installation, Ward Co., to Suggs Constr. Co., Big Spring, and to Uvalde Constr. Co., Sante Fe Bldg., Dallas, to exceed $3,000,000.

Texas—CONSTRUCTION—U. S. Eng., Fort Sam Houston, addnl. construction to Wm. Cravens & Sons, Builders Exch., San Antonio, $100,000-$500,000.

Texas — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., Cotton Exchange Bldg., San Antonio, electrical distr. sys., Bexar Co., to Wright Bros. Electric Co., 405 Main Ave., San Antonio, under $50,000.

Texas — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., San Antonio, electrical distr. sys., Bexar Co., to Claude Krisch Electric Co., 104 E. Huff St., San Antonio, under $50,000.

Texas — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., San Antonio, electrical distr. sys., Bexar Co., to Nathan Alterman Electric Co., 202 E. Commerce St., San Antonio, under $50,000.

Texas — ELECTRICAL DISTRIBUTION SYSTEM, etc.—U. S. Eng., Fort Sam Houston, electrical distr. sys., for railroad facilities Spec. 42-312, T1-15, to Nathan Alterman Electric Co., Commerce St., San Antonio.

Texas — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., San Antonio, electrical distr. sys., Cameron Co., to Hargis Electric Co., Brownsville, under $50,000.

Texas—FIRE ALARM SYSTEMS—U. S. Eng., Citizens Bank Bldg., Denison, fire alarm sys., Dallas Co., to Smith Detective Agency & Night Watch Service, Inc., 610 N. Akard St., Dallas, under $50,000.

Texas—GASOLINE FUELING SYSTEM, etc.—U. S. Eng., Federal Bldg., Galveston, a.c. gasoline fueling sys., steel tanks, piping, concrete pits, etc., to Aqua Systems, Inc., 3611 Barry St., Dallas, $50,000-$100,000. CD 8/17—ENR 8/20.

Texas—GASOLINE FUELING SYSTEM—U. S. Eng., Albuquerque, N. M., gasoline fueling sys., mechanical pumping, Lubbock Co., to A. P. Kasch, Big Spring, under $50,000.

Texas—GASOLINE STORAGE SYSTEM—U. S. Eng., San Antonio, gasoline storage and distr. sys., Bexar Co., to Glovebox Taximeter Corp., 4001 Navigation St., Houston, $50,000-$100,000.

Texas—GASOLINE STORAGE, etc.—U. S. Eng., San Antonio, gasoline storage and distr sys., Bexar Co., to Glovebox Taximeter Corp., 4001 Navigation St., Houston, under $50,000.

Texas—GASOLINE SYSTEM—U. S. Eng., 25 St. and Ave. F., Galveston, gasoline sys., Harris Co., to J. W. France Co., Del Valle, under $50,000.

Texas—GASOLINE SYSTEM—U. S. Eng., 25 St. and Ave. F., Galveston, gasoline sys., Cameron Co., to Oil City Welding Works, Beaumont, under $50,000.

Texas—IMPROVEMENTS—U. S. Eng., Fort Sam Houston, imprvs., Spec. 42-262, to R. W. Briggs & Co., and M. R. Killian, Sunset Rd., San Antonio, $100,000-$500,000. Bids 8/18. CD 8/7—ENR 8/23.

★**Texas**—IMPROVEMENTS—U. S. Eng., Citizens Bank Bldg., Denison, imprvs., addnl. grading, drainage facilities, to Grace Gravelle & Smith, General Delivery, Oklahoma City, Okla., $500,000—$1,000,000. Bids 8/22.

Texas — IMPROVEMENTS — Brownsville Shipbuilding Corp., expanding, imprvs., Owner builds, $110,000; mill, force account, approx. $100,000.

Texas—NATURAL GAS LINES, etc.—U. S. Eng., Fort Sam Houston, natural gas lines, facilities, waterworks, sanitary sewers, Spec. 42-146, to David Vickers Co., Sweetwater, $50,000-$100,000. CD 7/21—ENR 7/23.

Texas—RAILROAD SIDING—U. S. Eng., Fort Sam Houston, railroad siding, facilities for a.c. gasoline sys., to W. A. Smith, 361 Greig St., Houston, under $50,000. CD 8/11.

Virginia—TARGET RANGES—U. S. Eng., 415 Postoffice & Courthouse, Norfolk, target ranges, Warwick Co., to Dewey G. Weddle & Co., Nat'l Bank of Commerce Bldg., Norfolk, $50,000-$100,000.

Washington—COMPASS SWINGING BASE—U. S. Eng., Textile Tower, Seattle, compass swinging base, Snohomish Co., to M. P. Butler Co., 3419—12 Ave. S.W., Seattle, under $50,000.

Washington—CONSTRUCTION—U. S. Eng., Textile Tower, Seattle, construction to M. P. Butler, 3419 12 Ave. S.W., Seattle, under $50,000.

Washington—SPRINKLER SYSTEM—U. S. Eng., Pittock Blk., Portland, Ore., automatic sprinkler sys., Walla Walla Co., to Urban & Wold, Walla Walla, under $50,000.

W. Va., Kingmont — DOCK — Virginia & Pittsburgh Coal & Coke Co., Fairmont, truck coal loading dock, Tygart River, near here, own forces. Est. over $25,000. CD 8/21—ENR 8/27.

Wisconsin—HEATING SYSTEM—U. S. Eng., 408 Federal Bldg., Milwaukee, heating sys., Sauk Co., to Stoehr & Landon, Inc., 1705 W. Cityhourn St., Milwaukee, under $50,000.

Wisconsin—STEAM SYSTEM—U. S. Eng., 408 Federal Bldg., Milwaukee, steam generating, steam distr. and condensate return sys., Dane Co., to Power Service Corp., 510 W. Juneau Ave., Minneapolis, Minn., $100,000-$500,000.

Wyoming —FIRE ALARM SYSTEM—U. S. Eng., 1709 Jackson St., Omaha, fire alarm sys., Natrona Co., to American District Telegraph Co., 155 6 Ave., New York, N. Y., under $50,000.

★**B. C., Abbotsford**—AIRPORT—Dpt. Transport, Ottawa, Ont., airport development, clearing, smoothing, grading, draining, hard-

UNCLASSIFIED (Contracts Awarded, Cont'd.)

surface runways, taxi strips, etc., to King Paving Co., Ltd., Box 610 and 6 Line, Oakville, Ont., **$1,659,000.**

★**B. C., Boundry Bay**—ACCOMMODATIONS—Dpt. National Defense for Air, Ottawa, Ont., temporary accommodation, barracks, officers quarters, mess, etc., at S.F.T. School 18, to Bennett & White Constr. Co., Ltd., 510 W. Hastings St., Vancouver. **$500,000.**

LATIN AMERICA

Panama, LaChorrera—Minister of Health & Pub. Works., LaChorrera, plans water system. $100,000.

PUBLIC BUILDINGS

PROPOSED WORK

†Alabama—Federal Works Agency, alterations, addns. recreational center. $25,000. Clyde Pearson, 115 S. Union St., Montgomery, archt.

†Ala., Huntsville—Madison Co. Bd. Educ., Huntsville, bids soon, 2 school bldgs. $382,000. **FWA.** Clyde Pearson, 115 Union St., Montgomery, archt.

★**†Ark., Camp Robinson (Little Rock)**—U. S. Eng., Little Rock, expansion of camp. To exceed $5,000,000.

†Calif., Burbank—Catholic Sisters of Providence, Oakland, plans by G. Adams, **2530** Cascadia Dr., Glendale, hospital, Buena Vista Ave. $400,600. **FWA.**

†Connecticut—Industrial Company, plans by Albert Kahn Associate Archts. & Engrs., Inc., 345 New Center Bldg., Detroit, Mich., brick, steel, concrete factory. Federally financed.

†Delaware—U. S. Eng., Penn Mutual Bldg., Phila., Pa., architect-engineer services by T. Morris Whiteside, Du Pont Bldg., Wilmington, bldgs., Kent Co.

†Delaware and Pennsylvania—U. S. Eng., Penn Mutual Bldg., Phila., Pa., architect-engineer services by Albright & Friel, Inc., 1520 Locust St., Phila., Pa., bldgs., New Castle Co., Del., and Berks Co., Pa.

★**†Florida**—U. S. Eng., Courthouse & Customhouse, Mobile, Ala., civilian housing.

†Florida—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Atlanta, Ga., plans nearing completion housing.

†Florida—U. S. Eng., Courthouse & Postoffice, Jacksonville, architect-engineer services by Steward & Skinner, Alton Rd., Miami Beach, conversion hotel into hospital, Dade Co.

†Illinois—U. S. Eng., 520 Merchandise Mart, Chicago, architect-engineering services by Skidmore, Owings & Merrill, 104 S. Michigan Ave., Chicago, remodeling temporary frame bldgs., Cook Co.

†Illinois—U. S. Veterans Admin., Vermont Ave. between H and I Sts., Wash., D. C., enlarging general medical hospital.

†Illinois—U. S. Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash., D. C., enlarging hospital.

†Kan., Kansas City—Federal Works Agency, 18 and F. Sts., Wash., D. C., bids soon, school, $90,000. J. W. Radotinsky, Commercial Natl. Bank Bldg., Kansas City, Kan., archt.

★**†Louisiana**—U. S. Eng., foot of Prytania St., New Orleans, gas instruction bldg. Under $1,000,000.

†Me., York—Town, revised plans by Huddleston & Hersey, Dover Rd., Durham, N. H., 6 room high school. Docket 17-117, $55,000. **FWA.** CD 7/17—ENR 7/23.

†Michigan—U. S. Eng., 520 Merchandise Mart, Chicago, Ill., architect-engineer services by Louis J. Sarvis, Battle Creek, temporary frame bldgs., Calhoun Co.

★**†Mississippi**—U. S. Eng., P. O. Box 97, Memphis, Tenn., plans by Wilson, Bell & Watkins, McClelland Bldg., Louisville, Ky., military housing. Over $3,000,000.

★**†Mississippi**—U. S. Eng., Courthouse & Postoffice, Vicksburg, plans by Wilson, Bell & Watkins, archts. and engrs., McClelland Bldg., Louisville, Ky., bldgs. Less than $2,000,000.

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, military housing, streets, sewage, water, lighting sys. Under $500,000.

†New Jersey—U. S. Eng., Penn Mutual Bldg., Phila., Pa., architect-engineer services by Rankin & Kellogg, 1717 Sansom St., Phila., Pa., remodeling hotel, Atlantic Co.

†North Carolina—U. S. Eng., 33 Customhouse, Charleston, S. C., architect-engineer services by J. N. Pease Co., Johnston Bldg., Charlotte, winterizing camp, Union Co.

N. C., North Wilkesboro—W. R. Lamb, mayor, abattoir. K. M. Allen, city engr.

★**†Oklahoma**—U. S. Eng., Wright Bldg., Tulsa, bids soon housing $1,800,000; water works sys., over $15,000; sanitary, storm sewers, over $25,000; grading, site development, over $25,000.

†Oregon—U. S. Eng., Pittock Blk., Portland, architect-engineer services by Stevens & Koon, Spalding Bldg., Portland, temporary frame bldgs., Umatilla Co.

†Pennsylvania—Pub. Housing Auth., NHA, 270 Bway., New York, plans by W. L. Murray, 1100 N. 2 St., housing.

†Pennsylvania—U. S. Eng., Penn-Mutual Bldg., Phila., architect-engineer services by Walter T. Karcher and Livingston Smith, 1520 Locust St., Phila., bldgs., Philadelphia Co.

†Pennsylvania—U. S. Eng., Penn Mutual Bldg., Phila, architect-engineer services by Willing, Sims & Talbutt, Architects Bldg., Phila., bldgs., Lehigh Co.

†Pennsylvania—U. S. Eng., Penn-Mutual Bldg., Phila., architect-engineer services by Irving S. Towsley, Otis Bldg., Phila., bldgs., Philadelphia Co.

†South Carolina—U. S. Eng., 33 Customhouse, Charleston, architect-engineer services by The John McCrady Co., 9 State St., Charleston, temporary frame bldgs., Charleston Co.

†Tennessee—U. S. Eng., Kingsport, bids soon bldgs. $100,000-$500,000.

★**†Texas**—U. S. Eng., Federal Bldg., Galveston, architect-engineer services by Niven, Staud, Rather & Turner, Bankers Mtg. Bldg., Houston, and bids soon bldgs., $2,000,000; Plans deposit $50; grading, site development, over $12,000; natural gas facilities, over $25,000; sanitary sewers, over $25,000; water facilities, over $15,000. Plans deposit $25 for each foregoing project. CD 7/28—ENR 7/30.

★**†Texas**—Pub. Housing Auth., NHA, Electric Bldg., Fort Worth, 2,240 housing units. Over $1,000,000.

†Texas—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., plans by Stone & Pitts, Goodhue Bldg., Beaumont, hospital, Tex. 41-244. $175,000.

†Tex., Harlingen—Valley Baptist Hospital, c/o J. C. Atchison, 2 story hospital addn. $150,000. **FWA.** CD 11/3—ENR 11 6.

†Washington—U. S. Eng., Central Bldg., Seattle, Wash., architect-engineer services by J. W. Maloney, Yakima, temporary frame bldgs., Spokane Co.

†Washington—U. S. Eng., Textile Tower, Seattle, bldg. and addn.

†Washington—U. S. Eng., Textile Tower, Seattle, architect-engineer services by John W. Maloney, Yakima, temporary frame bldgs., Spokane Co.

†Wash., Olympia—St. Peters Hospital, 420 S. Laurel St., Olympia, plans by J. H. Wohleb, Chambers Blk., nurses home. $92,000. **FWA.**

Wash., Renton—City of Seattle, County-City Bldg., Seattle substation near here. $63,000. E. R. Hoffman, City Light Bldg., Seattle city light supt.

Wash., Renton—Plans by G. W. Stoddard, Orpheum Bldg., Seattle, 1 story, frame hospital. $480,000. FWA funds sought.

†Wash., Vancouver—School Bd., plans by D. W. Hilborn and D. J. Stewart, Central Bldg., Seattle, high and 2 schools. $278,100. **FWA.** CD 8/17—ENR 8/20.

†Pacific Northwest—U. S. Eng., Textile Tower, Seattle, Wash., bldgs., Invs. 127; 125, and 122.

★**Alta., Calgary**—Allied War Supply Corp., c/o Dpt. Munitions & Defense, Ottawa, Ont., aviation gasoline plant, $1,000,000.

★**Ont., Hamilton**—Wartime Housing Ltd., 55 York St., Toronto, 300 dwellings. $750,000.

★**Ont., Toronto**—Wartime Housing Ltd., 55 York St., bids soon 725 addnl. houses, Toronto area. $1,500,000

BIDS ASKED

Bids Asked in September

★**†Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., housing, Conn 6055. $2,000,000. CD 7/17—ENR 7/23.

Bids Asked September 7

†Pennsylvania—Carnegie-Illinois Steel Co., Carnegie Bldg., Phila., bldg. $100,000-$500,000. Federally financed. CD 6/29—ENR 7/2.

Bids Asked September 8

†Pa., Upper Moreland—Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., school, Docket Pa. 36-116. **FWA.** CD 1/19—ENR 1/22.

†Pa., Willow Grove—Pub. Bldgs., Admin., North Interior Bldg., Wash., D. C., school, Moreland Twp. $96,000.

†Texas—U. S. Eng., Fort Sam Houston, bldgs., etc. Spec. 42-340. Plans deposit $25. CD 7/7—ENR 8/6.

Bids Asked September 13

†New Hampshire—U. S. Eng., Park Square Bldg., Boston, Mass., concrete bldg., Inv. 175-43-Neg 56.

†N. M., Deming—U. S. Eng., Albuquerque, laundry plant, $100,000. Plans deposit $50.

Bids Asked September 14

†Arizona—Bureau Reclamation, Customhouse, Denver, Colo., turbine-inlet pipe for unit N-7, Boulder power plant, Boulder Canyon project, Spec. 1665-D.

Bids Asked September 16

†Kansas—U. S. Eng., Albuquerque, N. M., temporary frame bldgs., Finney and Ford Counties.

Bids Asked About Sept[illegible]

†Pa., Corry—Corry Hospital Assn., E. E. Hawkins, pres., 1 story, [illegible] hospital. $55,000. **FWA.** T. K. Hend[illegible] 165 Inter-state Parkway, Bradford, arch[illegible]

Bids Asked October

†Pa., Phila.—Pub. Housing A[illegible] NHA, 270 Bway., New York, N. Y., 300 [illegible] housing units. Pa.-36254. Extend[illegible] Sept. 8/24—ENR 8/27.

Bids Asked

†Texas—Robert & Co., [illegible] Corpus Christi, warehouse, military h[illegible] No. 250 for Yards & Docks, Navy D[illegible] Constitution Ave. N.W., Wash[illegible]

†Texas—U. S. Eng., Fort Sam Houston, infirmary, Spec. 42-337, incl. und[illegible] ties, electrical distr. sys., sid[illegible] deposit $25.

†Texas—U. S. Eng., Fort Sam Houston, bldgs., Spec. 42-351. Plans deposit $25.

†Texas—U. S. Eng., Fort Sam Houston, housing expan., Spec. 42-334. Plans deposit $25.

Ont., Sarnia—Wartime Housing Ltd., 55 York St., Toronto, 50-100 houses. $250,000.

LOW BIDDERS

★**†Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass. Aug. 24 housing, Conn. 6033, from A. Barbaresi & Son, Inc., Plainville, **$1,137,000,** Alt. 1, add **$2,000,** Alt. 2, add **$20,000.** CD 8/17—ENR 8/20.

★**†Illinois**—Pub. Housing Auth., NHA, 20 N. Wells St., Chicago, Aug. 20 housing, Ill. 11151, from Assett Service Corp., Lombard. **$545,000.** CD 8/14.

N. Y., Deer Park—Dpt. Mental Hygiene, Albany, Aug. 19, coal mat at powerhouse, Edgewood State Hospital, from South Shore Contr. & Dredging Corp., 100 West Ave., Patchogue, **$51,987.**

★**†Texas**—Federal Housing Auth., Electric Bldg., Fort Worth, Aug. 21, housing, Texas 41-221, from J. J. Bollinger Const. Co., Braniff Bldg., Oklahoma City, Okla., **$1,022,400.** Preston Geren, W. G. Clarkson, J. P. Pelich, 815 Insurance Bldg., Fort Worth, archts. CD 8/14.

†Texas—U. S. Eng., Fort Sam Houston, bldg. Spec. 42-304, T1-19 from Crane & McBride, 2935 Victor St., Dallas.

†Texas—U. S. Eng., Fort Sam Houston, Aug. 24, housing, underground utilities, etc., Spec. 42-298, from Alamo Constr. Co., 1801 Smith-Young Tower, San Antonio. CD 8/19.

★**†Texas**—U. S. Eng., Citizens Bank Bldg., Denison, bldgs., from Rob. E. McKee, El Paso, **$1,000,000-$5,000,000.** CD 8/17—ENR 8/20.

CONTRACTS AWARDED

†Alabama—U. S. Eng., Courthouse and Customhouse, Mobile, storage bldgs., Inv. 568-42-73, to Peyton Higgison Co., St. Francis St., Mobile. Est **$100,000-$500,000.** Bids 8/12.

★**†Alabama**—U. S. Eng., 494 Spring St. N.W., Atlanta, Ga., bldgs., to Algernon Blair, 1st Natl. Bank Bldg., Montgomery. Total est. exceeds **$5,000,000.** CD 7/14—ENR 7/9.

★**†Arizona**—U. S. Eng., 751 Figueroa St., Los Angeles, Calif., temporary frame bldgs., Mohave Co., to Del E. Webb Constr. Co., S. 23 Ave., Los Angeles, Calif. $1,000,000-**$5,000,000.**

†Arizona—U. S. Eng., Albuquerque, N. M., temporary frame bldgs., electric, water and sewerage sys., Cochise Co., to **Rd. F.** Bridgeman, Albuquerque, N. M., **$100,000-$500,000.**

★**†Arkansas**—Pub. Housing Auth., NHA, Electric Bldg., Fort Worth, Tex., dwelling units, to J. W. Rich Constr. Co., West Memphis. **$1,190,000.**

†Arkansas—U. S. Eng., Gay Bldg., Little Rock, temporary frame bldgs., electric, water and sewage sys., Pulaski Co., to Geo. Sense & Co., 510 E. 15 St., Topeka, Kan., **$100,000-$500,000.**

†California—Dpt. Agriculture, The Mall, 12 to 14 Sts., Wash., D. C., **B.P.I.** laboratory and B.P.I. office bldg., Guayule Rubber Project, to C. N. Perkins, Salinas. Est. exceeds **$150,000.** Awarded 8/27. CD 7/31—ENR 8/6.

†California—U. S. Eng., 74 New Montgomery St., San Francisco, housing, utilities, to P. C. Gibson, 372 Velarde St., Mountain View. Awarded 8/28.

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, temporary frame bldgs., electric, water, sewage sys., Los Angeles Co., to D. E. Metzger, 3045 Gilroy St., Los Angeles. **$100,000-$500,000.**

†California—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., to W. H. Wisheroff Co., and G. Schmidt, 5322 College Ave., Oakland. Awarded 8/28.

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, temporary frame bldgs., electric, water and sewerage sys., Los Angeles Co., to D. E. Metzger, Los Angeles, **$50,000-$100,000;** construction, to G. C. Hewitt & Co., Ltd., 174 Glendale Bldg., Los Angeles, under **$50,000.**

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, foundations and floors for ware-

PUBLIC BLDGS (Contracts Awarded. (Cont'd.)

houses, San Bernardino Co., to Thomas M. McIlvenna, Pasadena, **under $50,000.**

†California—U. S. Eng., **74 New Montgomery** St., San Francisco, ordnance warehouses, addnl. motor transport facilities, to H. C. Geyer, 787 Munras Ave., Monterey, **$50,000-$100,000.** Awarded 2/21.

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, temporary frame bldgs., Riverside Co., to J. & D. Constr. Co., Los Angeles, **$100,000-$500,000.**

†California—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., to Jere Strizek, Route 7, Sacramento. Awarded 8/26.

†California—U. S. Eng., 74 New Montgomery St., San Francisco, bldgs., to V. H. Moore, 137 Lorimer St., Salinas. Awarded 8/25.

†California—U. S. Eng., Wright Bldg., Sacramento, temporary frame bldgs., water, gas, sewer, storm drains, electrical sys., streets, Contra Costa Co., to F. C. Stolte, Alameda, **$100,000-$500,000.**

★**†Calif., Mare Island**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C. ammunition, depot, hospital, radio receiving station, NOY 4705, S.A. 6, to Barrett & Hilp, 918 Harrison St., San Francisco, **$3,385,563.** Awarded 8/14. Additional to CD 6/16—ENR 6/11, under CA.

★**†Calif., San Pedro**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., fuel storage facilities, Naval Fuel Depot, NOY 5596, to Swinerton & Walberg Co. and United Concrete Pipe Corp., and A. S. Vinnell Co., 225 Bush St., San Francisco, **$5,375,000.**

★**†Calif., Santa Margarita**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Marine Corps Training Area, NOY 5468, to Engineers Ltd., 605 E. Olympic Blvd., Los Angeles, and J. E. Haddock, Ltd., 3578 E. Foothill Blvd., Pasadena, **$13,460,000.** Awarded 8/14.

†Connecticut—U. S. Eng., **819 Industrial** Trust Bldg., Providence, R. I., **storehouse,** to E. Turgeon, 614 **Turks Head Bldg.,** Providence, R. I. Est. about **$50,000.** Bids **8/11.**

†Florida — U. S. Eng., Courthouse and Customhouse, Mobile, Ala., **refrigeration plant,** Franklin Co., to Smith, Yetter & Griffin, 337 Worth Ave., Palm Beach, **$100,000-$500,000.**

†Florida—U. S. Eng., Courthouse & Postoffice, Jacksonville, temporary frame bldgs., Levy Co., to Paul A. Miller Constr. Co., Leesburg, **$100,000-$500,000.**

★**†Georgia** — U. S. Engr., Postoffice Bldg., Savannah, temporary frame bldgs., Houston Co., to A. R. Briggs Constr. Co., Macon, **$500,000-$1,000,000.**

†Idaho—U. S. Eng., Pittock Blk., Portland, Ore., temporary frame bldgs., Ada Co., to H. J. McNeel, 1824 Filmore St., Caldwell, **$100,000-$500,000.**

†Illinois—U. S. Eng., 520 Merchandise Mart, Chicago, bldgs., to Chell & Anderson, 176 W. Adams St., Chicago.

†Illinois—U. S. Eng., 520 Merchandise Mart, Chicago, bldgs., to Chell and Anderson, 176 W. Adams St., Chicago.

†Illinois—U. S. Eng., Post Office, Chicago, bldgs., to Nels Wagstad Co., 5406 W. Devon St., Chicago, **$100,000-$500,000*****heating and ventilating sys., Cook Co., to Mcauliffe Plumbing & Heating Co., East Chicago, Ind., **$50,000-$100,000*****plumbing and sewerage sys., to John Traff Bldg. Constr. Co., 3735 N. Clarke St., Chicago, under **$50,000.**

†Ill., Chicago—Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., remodeling **3rd,** 11th and 17th floors Merchandise Mart Bldg., to Pepper Constr. Co., 222 W. N. Bank St., Chicago, **$225,000.**

★**†Indiana**—U. S. Eng., 700 Union Guardian Bldg., Detroit, Mich., theater of operations bldgs., etc., Allen Co., to Herber & Greene, 3201 S. Lafayette St., Fort Wayne, under **$1,000,000.**

★**†Kansas**—U. S. Eng., Albuquerque, N. M., temporary frame bldg., Finney Co., to Tulsa Rig. Reel & Mfg. Co., and American Steel Derrick Co., Philtower Bldg., Tulsa, Okla., **$1,000,000-$5,000,000. (Correction**—contractors address) CD 8/25, under CA.

★**†Kan., Hutchinson**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., aviation facilities at Naval Reserve Aviation Base, NOY 6713, to Peter Kiewit Sons Co. and George W. Condon Co., 1024 Omaha Natl. Bank Bldg., Omaha, Neb., **$2,600,000.** Awarded 8/14. Additional to CD 7/21, under CA.

†Louisiana—U. S. Eng., foot Prytania St., New Orleans, housing, Inv. 43-60, to Barber Bros. Contg. Co., Raymond Bldg., Baton Rouge, and Perrilliat-Rickey Constr. Co., Inc., 1530 S. Rendon St., New Orleans. Awarded 8/21.

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, cold storage facilities, to Le Blanc Bros. & Aldrich, La. Natl. Bank Bldg., Baton Rouge. Awarded 8/24.

†Maine—U. S. Eng., **Park Square Bldg.,** Boston, Mass., storehouse, Inv. 175-43-Neg. 44, to M. Spinelli & Sons Co., Inc., 38 Chauncy St., Boston, Mass. **Est. $50,000. Bids 8/24.**

†Maryland—U. S. Eng., **Standard Oil Bldg.,** Baltimore, temporary frame bldg., Harford Co., to **Piracci Co., 1221 W. Baltimore St.,** Baltimore, **$100,000-$500,000.**

†Maryland—U. S. Eng., Standard Oil Bldg., Baltimore, temporary frame bldgs., Harford Co., to Walter K. Durham, 1713 Rittenhouse Sq., Phila., Pa., **$100,000-$500,000.**

★**†Md., Solomons**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., amphibious force training base, NOY 5680, to Bryne Organization, Dallas, Tex., **$3,437,780.** Awarded 8/18.

†Massachusetts—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., bldg., to J. G. Roy & Sons Co., 21 Silver St., Springfield. Est. **$100,000-$200,000.** Bids 8/24. CD 8/21—ENR 8/27.

†Massachusetts—U. S. Eng., **819** Industrial Trust Bldg., Providence, R. I., temporary frame bldgs., Hampden Co., to **The Home** Guild, Inc., 47 E. 34 St., **New York, N. Y. $100,000-$500,000.**

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, temporary bldg. for air freight terminal, Wayne Co., to Paul M. Sterling, 114 Liberty St., New York, N. Y., under **$1,000,000.**

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, theatre of operations type bldgs., Chippewa Co., to Howard MacDonald, Sault Ste. Marie, under **$1,000,000.**

Mich., Highland Park (br. Detroit) — Detroit Osteopathic Hospital, 12523 3 St., brick, steel, stone, reln.-con. hospital addn., plain fdn., to W. E. Wood Co., 4649 Humboldt Ave., Detroit. Est. **$150,000.** Bennett & Straight, 201 Schaefer Blvd., Dearborn, archt.

†Mich., Midland—Midland General Hospital, brick, steel, stone hospital bldg., to F. C. Truer Const. Co., Saginaw. Est. **$200,000. FWA.**

★**†Mississippi**—U. S. Eng., Vicksburg, military installation, Madison Co., to A. Farnell Blair, Decatur, Ga., and to Automatic Sprinker Corp. of America, Masonic Temple Bldg., New Orleans, La. Est. over **$3,000,000.**

★**†Nev., Hawthorne**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., addnl. facilities, Naval Ammunition Depot, NOY 4669, S.A. 6, to Radich & Brown, 3000 Empire Ave., Burbank, Calif., **$2,408,000.** Awarded 8/12.

†New Jersey—Industrial Company, bldg., to Weny Bros. & Storms Co., 241 Lafayette St., Paterson, **$65,000.** Federally financed.

†New Jersey—Industrial company, large garage, police and fire headquarters, to Carl Buhr, Inc., Grand Central Terminal Bldg., New York, N. Y. Federally financed. CD 2/9.

†New Mexico—U. S. Eng., Albuquerque, temporary frame bldgs., electric, water, sewerage sys., Otero Co., to Neill Singleton, Amarillo, Tex., **$100,000-$500,000.**

†New York—U. S. Eng., 960 Ellicott Square, Buffalo, temporary frame bldgs., Niagara Co., to W. F. Hendrich Co., Inc., Sidway Bldg., Buffalo, **$100,000-$500,000.**

†New York—U. S. Eng., 960 Ellicott Square Bldg., Buffalo, temporary frame bldgs., Erie Co., to N. Osborne Siegfried, t.a. Siegfried Co., 6 N. Pearl St., Buffalo. **$100,000-$500,000.**

†New York—U. S. Eng., Chimes Bldg., Syracuse, rehabilitation of plant, Onondaga Co., to Byrne Constr. Co., Inc., 411 Roberts Ave., Syracuse, **$100,000-$500,000.**

†New York—U. S. Eng., 960 Ellicott Square Bldg., Buffalo, temporary frame bldgs., Niagara Co., to D. Scrufari Constr. Co., Inc., Niagara Falls, **$100,000-$500,000.**

†North Carolina—U. S. Eng., Customhouse, Wilmington, temporary frame bldgs. Durham Co., to Mecklenburg Constr. Co., Durham. **$100,000-$500,000.**

★**†Ohio**—U. S. Eng., Wright Field, Dayton, addns., temporary frame bldgs., Montgomery Co., to The Ferro Concrete Constr. Co., 203 W. 3 St., Cincinnati, **$500,000-$1,000,000.**

†Ohio—U. S. Eng., 925 New Federal Bldg., Pittsburgh, Pa., concrete, steel bldgs., Portage Co., to Ruhlin Bros., Constr. Co., 175 N. Highland St., Akron, **$100,000-$500,000.**

★**†Ohio**—U. S. Eng., 700 Union Guardian Bldg., Detroit, Mich., production bldg., Allen Co., to Knowlton Constr. Co., Bowling Green, less than **$1,000,000.**

†Oklahoma—U. S. Eng., Tulsa, bldgs., to S. Pennington, 3601 NW. 23 St., Oklahoma City, less than **$150,000.** Awarded 8/24. CD 7/29.

†Oklahoma—U. S. Eng., Oklahoma City, Okla., temporary frame storage bldg., Oklahoma Co., to Steve Pennington, Petroleum Bldg., Oklahoma City, **$50,000-$100,000.**

†Pennsylvania—Federal Works Agency, post office bldg., to John Stapf, 3365 N. 6 St., Harrisburg. J. W. Minick, 2 and State Sts., Harrisburg, archt.

★**†Pa., Phila.**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C. aviation material storehouse, facilities, NOY 5693, to Ralph S. Herzog & Henry W. Horst Co., 1505 Race St., Phila., Pa., **$7,500,000.** Awarded 8/31.

★**†R. I., Davisville**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., additional facilities, Advance Naval Depot, NOY 4175, S.A. 6, to George A. Fuller Co., and Merritt-Chapman & Scott Corp., 597 Madison Ave., New York, N. Y., **$79,219,769.** Awarded 8/4. Additional to CD 8/19—ENR 8/27, under Rhode Island, CA.

★**†South Carolina**—U. S. Eng., 33 Customhouse, Charleston, temporary frame bldgs., electric, water, sewerage sys., Charleston Co., to Dawson Engineering Co., Charleston, **$500,000-$1,000,000.**

★**†South Carolina**—U. S. Eng., 33 Customhouse, Charleston, temporary frame bldgs., electric, water, sewerage sys., Richland Co., to M. B. Kahn Constr. Co., 714 Lady St., Columbia, **$500,000-$1,000,000;** and to C. G. Shockley, 1325 Main St., Columbia, **$100,000-$500,000.**

★**Tennessee**—U. S. Eng., 494 Spring St., Atlanta, Ga., Nashville Tenn., temporary frame bldgs., Henry Co., to Rock City Constr. Co., 135 4th Ave. N., Nashville, **$1,000,000-$5,000,000.**

†Tennessee — U. S. Eng., 306 Courthouse, Nashville, bldgs., to B & H Constr. Co., Nashville. Est. **$100,000-$500,000.**

†Tennessee—U. S. Eng., 494 Spring St. N.W., Atlanta, Ga., temporary frame bldgs., Henry Co., to Building Constructors, Inc., Memphis, **$100,000-$500,000.**

★**†Texas**—Pub. Housing Auth., NHA, Electric Bldg., Fort Worth, housing units, to J. J. Bollinger Const. Co., Braniff Bldg., Oklahoma City, Okla., **$1,077,400.** Est. $1,000,000. Awarded 8/21. Clarkson, Pelich, Geren & Rady, Ins. Bldg., Fort Worth, archts.

†Texas—U. S. Eng., Citizens Bank Bldg., Denison, temporary frame bldgs., Cooke Co., to Robert E. McKee, 1918 Texas St., El Paso. **$100,000-$500,000.**

★**†Texas**—U. S. Eng., Fort Sam Houston, Groups A, B and C, bldgs., Spec. 42-248, to Rex Kitchens, 608 Monroe St., Austin, **$1,000,000-$5,000,000.** Awarded 8/26.

†Texas—U. S. Eng., San Antonio, temporary frame bldgs., Cameron Co., to Miller & Rosson, Kerrville, **$100,000-$500,000.**

†Utah—U. S. Eng., 32 Exchange Pl., Salt Lake City, temporary frame bldgs., Weber Co., to George H. Whyte, Jr., Alhambra, Calif., **$100,000-$500,000.**

†Virginia — U. S. Eng., 415 Postoffice & Courthouse, Norfolk, temporary frame bldgs., and water, sewer, electrical facilities, Elizabeth Co., to Virginia Engineering Co., Inc., Newport News, **$100,000-$500,000** and under **$50,000** respectively.

★**†Virginia** U. S. Eng., Staunton, Woodrow Wilson Army General Hospital, to Jefferess-Dyer, Inc., 1741 K St. N.W., Wash., D. C., **$1,000,000-$5,000,000.** Bids 8/17. Perring & Remington, 10 W. Chase St., Baltimore, Md., engrs. CD 8/20—ENR 8/27, under LB.

†Virginia—U. S. Eng., 415 Postoffice & Courthouse, Norfolk, temporary frame bldgs., Elizabeth City Co., to L. B. Gallimore, Greensboro, N. C., **$100,000-$500,000.**

★**†Washington** and **Oregon**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C. addnl. facilities, Naval Supply Depot, Seattle, Wash., and at Naval Air Station, Tongue Point, Ore., and radio station, Astoria, Ore., NOY 4210, S.A. 8, to Austin Co., 16112 Euclid Ave., Cleveland, O., **$4,091,700.** Awarded 8/11.

†Washington—U. S. Eng., Textile Tower, Seattle, temporary frame bldgs., Snohomish Co., to Gaasland Constr. Co., 1163 Ellis St., Bellingham, **$100,000-$500,000.**

†Washington—U. S. Eng., 800 3 Ave., Seattle, temporary frame bldgs., Spokane Co., to Clyde M. Ludberg Co., 321 1 St., Spokane, **$100,000-$500,000.**

★**†Washington**—U. S. Eng., 300 3 Ave., Seattle, temporary frame bldgs., Spokane Co., to Ford J. Twaits Co., 151 N. Ave. 19, Los Angeles, Calif., **$500,000-$1,000,000.**

★**†Wash., Spokane**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Naval Supply Depot, NOY 5569, to Clifton & Applegate Co., Hutton Bldg., Spokane, **$8,665,000.**

†Wisconsin—U. S. Eng., 408 Federal Bldg., Milwaukee, sprinkler sys. in bldgs., to Automatic Sprinkler Co. of America, Brittain St., Youngstown, O. Bids 8/13. CD 8/12.

★**†Iceland**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., additional facilities at Advance Base, Naval Operating Base, NOY 4950, S.A. 1, to George A. Fuller & Co. and Merritt-Chapman & Scott Corp., 597 Madison Ave., New York, N. Y., **$3,000,000.**

★**Ont., Pickering**—Wartime Housing Ltd., 65 York St., Toronto, 300 addnl. houses, to John Maguire Contg. Co., Ltd., 23 A Birch St., Toronto, Ont., about **$650,000.**

COMMERCIAL BUILDINGS

PROPOSED WORK

Calif., Alameda—Bethlehem Steel Co., Webster and Tynan Sts., office.

Calif., Downey—Owner, c/o C. N. Aldrich, archt., 1834 Dawson Ave., Long Beach, 166 frame, stucco dwellings. Over $250,000.

★**Conn., Bridgeport**—Jennings Hills, Inc., 670 Huntington Turnpike, 150 addnl. 1 story, 24x31 ft. frame dwellings. $650,000.

Conn., New Haven—James Wheeler, c/o D Orr, archt., 96 Grove St., six 2 story, brick

COMMERCIAL BLDGS. (Proposed Work, Cont'd.)

apartments, Division, Prospect and Mansfield St. $200,000.

Ill., Sycamore—Own Your Own Home Corp., Sycamore, plans by Bradley & Bradley, Brown Bldg., Rockford, 60 houses. Over $150,000.

Ia., Decorah—Luther College, K. Hanson, bus. mgr., plans by C. Altfillisch, 126 W. Water St., school. $250,000. CD 6/16—ENR 6/18.

Mich., Battle Creek—Percy Jones Hospital, Battle Creek, plans by Lewis J. Sarvis, Battle Creek, 4 story, bsmnt., brick, steel, concrete stone hospital, plain fdn. $200,000.

Mich., Battle Creek—Seventh Day Adventist Church, Battle Creek, plans by A. B. Channel, Battle Creek, 2 story, bsmnt., brick, stone, concrete school, plain fdn. $150,000.

N. J., Metuchen—Metuchen Park Homes, c/o I. Kurtz, archt., 15 W. 44 St., New York, N. Y., twenty-five 2 story, bsmnt. residences. $200,000.

N. J., Roselle—Sheridan Homes, Inc., 2 Franklin Ave., Cranford, plans by H. Irving Braun, 191 Bway., Long Branch, fifteen 2 story, bsmnt., 35x40 ft. wood shingle apartments.

N. J., Somerville—B. and H. Neisloss, 33-43 Bell Blvd., Bayside, N. Y., plans by B. Braunstein, 16348 Jamaica Blvd., Jamaica, N. Y., eight 2 story, bsmnt., 25x103 ft. garden apartments. $400,000.

N. J., Woodridge — Woodridge Garden Apartments, 16 Depot Sq., Englewood, plans by E. T. Strassle, Union Ave., Bloomingdale, seven 2 story, bsmnt., brick, concrete garden type apartments, $200,000.

Pa., McKees Rocks—Ohio Valley Hospital, J. M. Hall, chn. Bd. Dir., 810 Chartiers Ave., plans by P. C. Dowler, 803 Century Bldg., Pittsburgh, hospital, probably brick. CD 8/12—ENR 8/20.

Pa., Yeadon (br. Lansdowne)—Fitzgerald Mercy Hospital, Lansdowne Ave. and Bailey Rd., brick limestone nurses school, Lansdowne Ave. at Bailey Rd. H. D. Daget & Sons, 1329 Race St., Phila., archts. CD 7/14—ENR 7/16.

Tex., Texas City—Gordy Bros., Texas City, bids soon, 50 frame dwellings. $200,000.

CONTRACTS AWARDED

Calif., Los Angeles—Security Constr. Co., 7801 Glenrock Blvd., Burbank, 130 frame, stucco dwellings, Van Nuys Dist. Owner builds. **$395,000.**

Calif., Richmond—D. C. Welbanks, 15 Jeter St., Redwood City, 1 story, frame residences, to N. M. Welbanks, 15 Jeter St., Redwood City. Est. over **$150,000.**

Calif., Stockton—Central Lumber Co., 1001 E. Channel St., forty-six 1 story, frame residences, northwest section Oxford Manor 2 bordered by Pershing Ave. and County Club Rd. Owner builds. **$184,000.** J. W. Clowdsley, Exch. Bldg., archt. CD 7/31—ENR 8/6.

★ **Calif., Stockton**—Home Builders, Inc., 2254 E. Poplar Lane, one hundred sixty-eight 1 story frame residences, Lew Park Terrace, opposite Pollock Stockton Shipyard, Owner builds. **$672,000.**

Calif., Stockton—D. B. MacDonald, 2254 E. Poplar Lane, fifty-five 1 story frame residences, E. Ricardo Terrace. Owner builds. **$220,000.**

Conn., Bridgeport—Wakeman Land Co., Old Town Rd., 45 homes. Owner builds. **$275,000.** E. B. Woolley, Box 579, Milford, archt.

Conn., Deep River—Silas Frazee, Deep River, fifty 1½ story, 34x30 ft. frame housing units. Owner builds, **$215,000.** W. La Zink, Higganum, archt.

Md., Baltimore—Patapsco Building Co., 3600 Victoria St., sixty-three 2 story, brick dwellings. Owner builds. **$157,700.** K. C. Miller, 2555 Newland Rd., archt.

Mo., St. Louis—H. A. Wagner, 512 Maplelview Dr., University City, St. Louis, forty 1 story, 25x32 ft. brick, bungalows, 5800 Block of Rhodes Ave., own forces. Over **$200,000.**

Mo., St. Louis County—Clayton Mortgage Co., Cypress Rd., Bridgeton Terrace, 152 frame bungalows, concrete fdns., Bridgeton Terrace on Cypress Rd., south Natural Bridge Rd., own forces.

Mo., St. Louis County (St. Louis P. O.)—W. J. Keim, 3700 Taft Ave., St. Louis, 51 bungalows, Keim homesites, Telegraph Rd. near Jefferson Barracks, own forces, **$150,000** plus.

O., Columbus—Don Casto, 145 N. High St., seven 4 family apartment bldgs., Mayfair Blvd. Owner builds. **$150,000.** H. Roderick, 2709 Bexley Blvd., archt.

Tex., Fort Worth—Loffland & Luther, Edgefield and Oaklawn Dr., forty-two 1 story, frame dwellings. Owner builds. **$150,000.** CD 8/24—ENR 8/27.

Tex., Fort Worth—Ridglea Development Co., Inc., 6200 Locke St., 35 frame dwellings. Owner builds. **$150,000.** CD 8/24—ENR 8/27.

Tex., Temple—Temple Housing Corp., c/o T. J. Cloud, Temple, 38 frame dwellings, underground utilities, force account. Approx. **$200,000.**

Wis., Greenfield (Milwaukee, P. O.)—Stack Realty & Development Co., S. 53 and W. Dakota Sts., 38 frame residences. Owner builds. **$162,700.**

Wyo., Cheyenne—N. P. Black, c/o P. J. Black Lumber Co., 16 and Van Lennan Ave., 45 homes, own forces. **$200,000.**

INDUSTRIAL BUILDINGS

PROPOSED WORK

Conn., Bridgeport — PLANT — Bridgeport Brass Co., 30 Grand St., preparing plans 4 story, brick, timber plant addn., etc. Grand St. Fletcher-Thompson, Inc., 211 State St., engrs.

Conn., East Hartford (br. Hartford)—PLANT—Pratt & Whitney Div. Niles-Bement-Pond, Charter Oak Blvd., West Hartford, soon lets contract renovating shop and offices, brick addn. BX Bldg. Over **$40,000.**

Conn., Glenbrook (Sta. Stamford)—FACTORY—Perkins-Elmer Corp., 535 Hope St., Glenbrook, plans nearing completion brick factory addn., Hope St. $40,000. Fletcher-Thompson, Inc., 211 State St., Bridgeport, engr.

Mass., Lynn—PLANT—General Electric Co., 920 Western Ave., soon lets contract, brick, concrete boiler plant. $40,000.

Mass., Quincy—RUST FURNACE—Bethlehem Steel Co., E. Howard St., soon lets contract, rust furnace unit, brick.

Mich., Tecumseh — FACTORY — Tecumseh Mfg. Co., Tecumseh, revised plans by Hahn & Hayes, 723 Adams St., Toledo, O., 1 story, 150x250 ft., brick, steel, concrete factory, plain fdn. $50,000. CD 7/15—ENR 7/30.

Minn., Le Sueur—FACTORY—Minnesota Valley Milk Processing Assn., Le Sueur, factory. $186,000.

Neb., Lincoln—FACTORY—Elastic Stop-Nut Corp., 900 N. 16 St., factory addn., alterations. $95,500.

O., Akron — FOUNDRY — Atlantic Foundry Co., 182 Beaver St., 1 story, brick, steel concrete fdry. $40,000.

O., Cleveland—FACTORY—Cuyahoga Tool & Mold Co., J. L. Lowe, 16130 Holmes Ave., factory. $40,000. W. A. Bingham, 1631 E. 254 St., engr.

Pa., McKeesport—PLANT—Roy C. Price Iron Wks., 2121 5 Ave., rebuilding 2 story, brick, concrete plant. $50,000.

R. I., Bristol—FACTORY—Owner, c/o L. Capone, 85 Westminster St., Providence, brick factory, Thames St. $40,000.

Tex., Mercedes—PACKING PLANT—Missouri Pacific Ry., C. S. Kirkpatrick, ch. engr., Houston, rebuilding 1 and 2 story, brick, frame packing plant.

Tex., Pittsburgh—PLANT—Camp Co. Dehydration Plant, 65x250 ft., bids soon, potato yam dehydration plant, $325,000.

Wash., Bellingham—PLANT—Brooks Lumber Co., Bellingham Natl. Bank Bldg., rebuilding lumber plant. $40,000.

Wis., Milwaukee—FOUNDRY, etc.—Pelton Steel Casting Co., 148 Dewey Pl., plans by C. Liebert, 1101 N. Van Buren St., 2 story foundry and cleaning room. Building Eng. Service, 1101 N. Van Buren St., engrs.

★ **Ont., Cooksville**—PLANT—War Electric Laboratories Ltd., Dundas St., bids soon four 100x600 ft. bldgs., two 50x200 ft. bldgs., 2 story, 50x55 ft. power house, administration bldg., tile, brick, also 78 employees houses. About $1,500,000. CD 8/18—ENR 8/27.

BIDS ASKED

Bids Asked September 8

Ind., Dresser — GENERATOR STATION — Sargent & Lundy, engrs., 140 S. Dearborn St., Chicago, Ill., superstructure 1 story, brick, concrete generator station, for Pub. Service Co. of Indiana, Traction Bldg., Indianapolis. $150,000.

Mass., Worcester—SHOP, etc.—Wyman-Gordon Co., 105 Madison St. (from selected bidders) 1 story, 55x320 ft. and 1 story, 80x100 ft. brick, wood, steel, shop, warehouse and office bldgs. $200,000. C. H. Abramowitz, 52 Giffe Terrace, New Haven, Conn., archt.

Bids Asked About September 8

Wis., Milwaukee—PLANT, etc.—Wisconsin Cuneo Press, Inc., 247 E. Chicago St., 1 story, 80x150 ft., brick, printing plant and office addn., concrete fdn.

Bids Asked

Calif., San Francisco — REPAIR SHOP — United Eng. Co., Ltd., 298 Steuart St., repair shop. Over $40,000.

Connecticut—PLANT—Vought-Sikorsky Div. United Aircraft Corp., 550 Main St., Stratford (from selected bidders) plant. $130,000.

Conn., Stamford — FACTORY—Norma-Hoffman Bearings Corp., Hamilton Ave., 1 story, 125x135 ft., brick factory addn., Hamilton Ave. $55,000. Fletcher-Thompson, Inc., 211 State St., Bridgeport, engrs.

LOW BIDDERS

Calif., San Francisco—REPAIR SHOP—United Eng. Co., Ltd., 298 Steuart St., repair shop, from Willis F. Lynn, [illegible] Ave., Oakland. J. Hudspeth, [illegible] Peak Blvd., Merkeley, [illegible] ENR 9/3.

CONTRACTS AWARDED

Ariz., Kingman — PLANT — [illegible] Products Corp. c/o H. J. Joa[illegible] Chamber of Commerce Bldg., [illegible] Calif., plant, to C. T. and W. [illegible] N. Alexander Ave., Claremont, [illegible] **$150,000.**

Calif., Lemoore — PLANT — [illegible] Creamery Assn., J. C. Nunes, [illegible] St., to Carl T. Lightner, 313 C[illegible] **$105,000.**

Calif., Oroville — WAREHO[illegible] — Pacific R.R. Co., T. L. Phillips, [illegible] Mission St., San Francisco, 1 [illegible] warehouse, to Holdener Const[illegible] St., Sacramento. Est. over **$40,000.**

Calif., Willits—MILL—Sage [illegible] Co., Willits, sawmill, 2 high[illegible] acres, for dry yard, to Spaletta [illegible] 1357 Cleveland Ave., Santa Rosa. [illegible] ENR 10/9.

Kan., Fowler—STORAGE—[illegible] Exchange Co., Fowler, design [illegible] tion twenty-two grain storage [illegible] high, to Chalmers & Borton, [illegible] Hutchinson. Est. **$55,000.**

Mich., Detroit — FACTORY — [illegible] troit Axle Co., 100 Clark St., [illegible] steel, concrete factory, plain fdn., to O. W. Burke Co., 1010 Fisher Bldg. Est. approx **$150,000.** Smith, Hinchman & Grylls, 800 Marquette Bldg., archts. and engrs.

Minn., East Grand Forks—PLANT—True Food Dehydrators, Inc., R. Dean, pres., East Grand Forks, general contract plant, to J. Fish, Barnesville. Est. incl. equip. **$100,000.** E. Brunton, Fergus Falls, archt.

Minn., Minneapolis — WAREHOUSE — Chicago, Rock Island & Pacific R.R. Co., F. W. Thompson, ch. engr., La Salle St. Sta., Chicago, Ill., general contract superstructure, 1 story, 100x160 ft., rein.-con., brick warehouse, 410 10 Ave. S., to Krause-Anderson Co., 511 S. 7 St., over **$75,000.**

Mo., St. Louis—FOUNDRY and FACTORY—McQuay Norris Mfg. Co., 2320 Marconi Ave., 1 story, 82x242 ft. brick foundry and factory, concrete fdn., 2320 Marconi Ave., to Fruin-Colnon Contg. Co., 408 Olive St. J. John Hoener & W. J. Hubbard, 3415 South Kingshighway Blvd., archts.

N. J., Maywood—PLANT—Maywood Chemical Co., 100 Hunter St., 1 story, bsmnt., terra cotta, brick plant, to The Ferber Co., 16 Johnson Ave., Hackensack, **$40,000.**

New York — PLANT — Industrial Company, mfg. plant, to Warren Const. Co., 335 Steel St., Jamestown. Est. **$350,000.** Awarded 8/24. CD 8/19—ENR 8/27.

O., Cleveland—FOUNDRY, etc.—Jack & Heintz, Inc., W. Jack, pres., Hanna Bldg., 1 story, 60x120 ft. brick, steel foundry, 1 story, 60x120 ft. garage. Owner builds under supervision P. Stremple, c/o owner. Est. **$50,000.** Wilbur Watson & Associates, 4614 Prospect Ave., archts.

O., Cleveland—PLANT—Monarch Aluminum Mfg. Co., R. Deutsch, pres., 9301 Detroit Ave., 1 story 70x204 ft., brick, steel plant, to H. L. Vokes Co., 5300 Chester Ave. Est. **$50,000.** Awarded **8/21.**

Pennsylvania—PLANT—Industrial Company, plant, to Barclay White Co., 22 N. 36 St., Phila. Silverman & Levy, Architect Bldg., Phila., archts.

Pa., Duquesne—SHOP—Union R.R. Co., Frick Bldg., Pittsburgh, H. A. Sayre, ch. engr., East Pittsburgh, 2 story bsmnt., 60x250 ft. brick or concrete block shop, own forces.

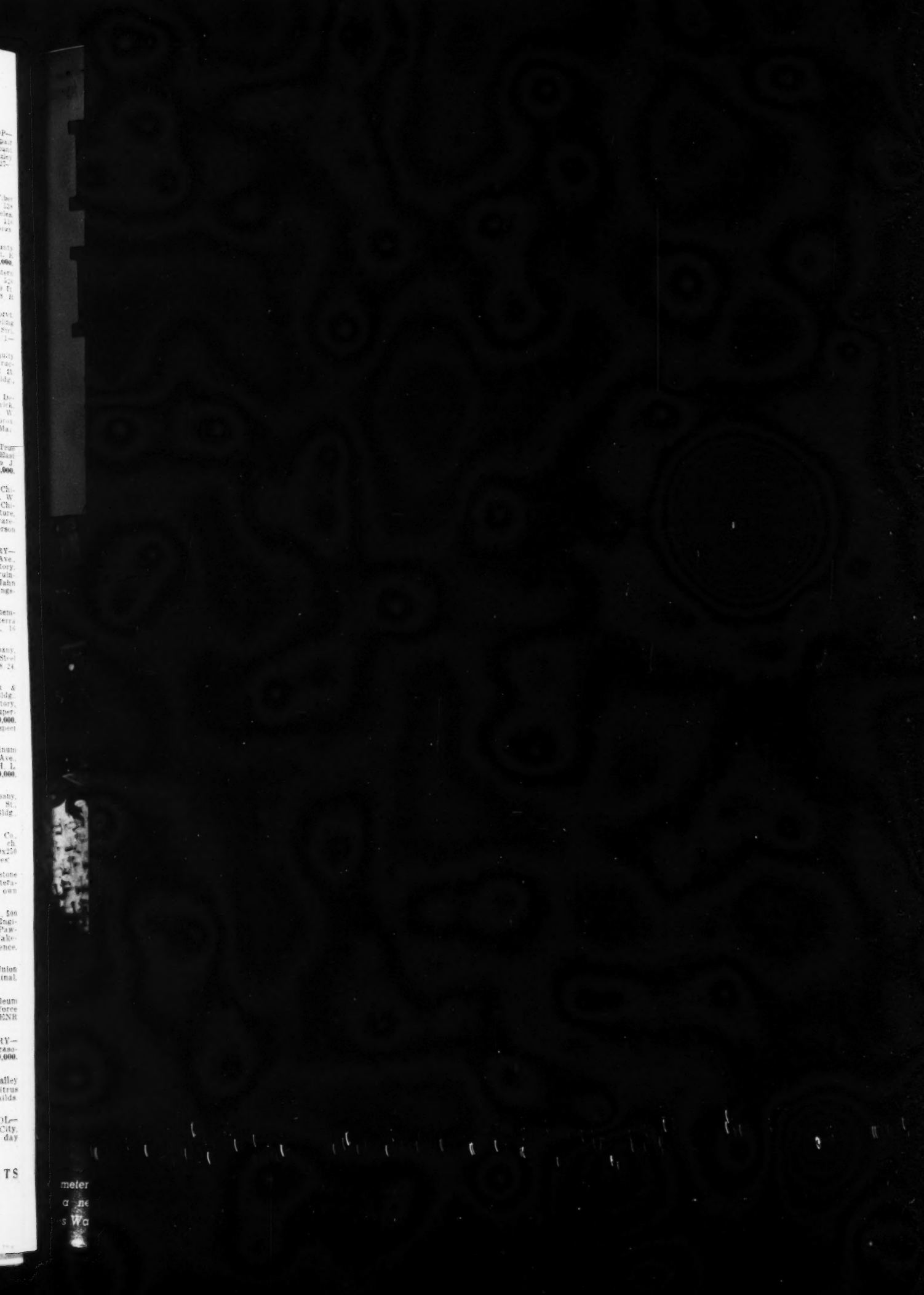
Pa., Franklin—POWER PLANT—Keystone Pub. Service Co., Oil City, addns., alterations power plant, 13 and New Sts., own forces. Over **$40,000.**

R. I., Bristol—PLANT—U. S. Rubber Co., 500 Wood St., plant expan., etc., to Central Engineering & Construction Co., 210 Main St., Pawtucket. Est. **$75,000.** Bids 7/27. C. R. Makepeace & Co., 439 Grosvenor Bldg., Providence, engr.

Tex., Brownsville—BUS TERMINAL—Union Bus Lines, c/o J. Amberson, bus terminal, storage facilities, day labor. **$40,000.**

Tex., Borger—PLANT—Phillips Petroleum Co., Borger, steel storage facilities, force account. Approx. **$90,000.** CD 6/23—ENR 7/2.

Tex., Clarkwood—GASOLINE REFINERY—G. Claymore, Milam Bldg., San Antonio, gasoline refinery imprvs., own forces, **$40,000.** Awarded 8/24.

Tex., McAllen—PLANT—Rio Grande Valley Citrus By-Products, Inc., McAllen, citrus peel by-products plant exten. Owner builds. **$45,000.** CD 11/10—ENR 11/13.

Tex., Texas City—PUMP and CONTROL—Pan American Refining Corp., Texas City, steel, masonry pump and control bldgs., day labor. **$50,000.**